

ALMANAC

VIII

PLANETARY

PHENOMENA OF

MARS IN CE

The almanac VIII contains a list of planetary phenomena of Mars from the 1st millennium CE to the 6th millennium CE, from the 1st century CE to the 51st century CE.

Planetary Phenomena of Mars from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 40

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	-7 Nov 11 j 21:03	0°♎			-1 Mar 03 j 14:30	0°♎		
retrograde	-6 Feb 01 j 00:57	26°♎13'26			-1 Apr 19 j 01:09	0°♎		
opposition	-6 Mar 10 j 18:24	17°♎49'57	3°34'39		-1 Jun 05 j 04:59	0°♎		
greatest brilliancy	-6 Mar 11 j 20:32	17°♎25'06	-1.5m	evening set	-1 Jun 18 j 14:18	8°♎28'58		
min. Earth dist.	-6 Mar 16 j 23:33	15°♎28'34	0.60251 AU		-1 Jul 22 j 11:48	0°♎		
direct	-6 Apr 20 j 16:35	8°♎00'35		max. Earth dist.	-1 Jul 28 j 01:09	3°♎32'29	2.67143 AU	
desc. node	-6 Jun 11 j 01:46	21°♎31'43						
	-6 Jun 28 j 02:32	0°♎		conjunction	-1 Aug 03 j 19:04	7°♎50'59	1°09'33	
	-6 Aug 16 j 01:44	0°♎		minimum elong	-1 Aug 03 j 19:11	7°♎51'11	1°09'33	
	-6 Sep 27 j 04:51	0°♎			-1 Sep 07 j 05:04	0°♎		
	-6 Nov 05 j 15:05	0°♎		morning rise	-1 Sep 17 j 08:50	6°♎36'13		
	-6 Dec 14 j 04:18	0°♎			-1 Oct 22 j 21:25	0°♎		
	-5 Jan 22 j 02:01	0°♎			-1 Dec 06 j 08:53	0°♎		
	-5 Mar 03 j 06:02	0°♎			00 Jan 18 j 18:07	0°♎		
evening set	-5 Mar 21 j 23:06	13°♎32'27		desc. node	00 Feb 01 j 00:20	9°♎17'39		
asc. node	-5 Apr 10 j 18:25	27°♎33'48			00 Mar 01 j 08:39	0°♎		
	-5 Apr 14 j 06:05	0°♎			00 Apr 12 j 23:27	0°♎		
					00 May 27 j 22:31	0°♎		
conjunction	-5 May 16 j 23:35	22°♎26'00	0°21'26		00 Aug 02 j 01:03	0°♎		
minimum elong	-5 May 16 j 22:33	22°♎24'17	0°21'25	retrograde	00 Aug 14 j 11:29	1°♎06'19		
	-5 May 28 j 06:26	0°♎			00 Aug 26 j 17:18	30°♎		
max. Earth dist.	-5 Jun 10 j 03:54	8°♎32'55	2.59981 AU	min. Earth dist.	00 Sep 10 j 17:12	26°♎06'17	0.43426 AU	
morning rise	-5 Jul 06 j 21:52	25°♎59'55		greatest brilliancy	00 Sep 17 j 03:02	23°♎58'49	-2.5m	
	-5 Jul 13 j 02:51	0°♎		opposition	00 Sep 18 j 13:25	23°♎30'06	-3°-58'-8	
	-5 Aug 29 j 11:10	0°♎		direct	00 Oct 20 j 06:40	17°♎17'53		
	-5 Oct 17 j 06:33	0°♎		asc. node	00 Nov 30 j 14:32	26°♎33'01		
	-5 Dec 07 j 17:39	0°♎			00 Dec 08 j 22:50	0°♎		
	-4 Feb 07 j 07:50	0°♎			01 Feb 04 j 17:49	0°♎		
retrograde	-4 Mar 22 j 11:19	9°♎36'26			01 Mar 27 j 15:21	0°♎		
opposition	-4 Apr 25 j 16:41	2°♎48'53	0°07'36		01 May 15 j 22:11	0°♎		
greatest brilliancy	-5 Oct 10 j 05:13	25°♎43'53	-4.2m		01 Jul 03 j 03:26	0°♎		
desc. node	-4 Apr 28 j 01:01	2°♎00'54		evening set	01 Jul 25 j 02:37	13°♎56'45		
	-4 May 03 j 23:49	30°♎			01 Aug 18 j 23:17	0°♎		
min. Earth dist.	-4 May 04 j 04:42	29°♎55'58	0.48189 AU	max. Earth dist.	01 Aug 20 j 06:05	0°♎50'15	2.62612 AU	
direct	-4 Jun 02 j 09:44	24°♎28'26						
	-4 Jul 02 j 01:38	0°♎		conjunction	01 Sep 09 j 04:28	13°♎57'54	0°53'11	
	-4 Aug 28 j 02:17	0°♎		minimum elong	01 Sep 09 j 05:41	13°♎59'56	0°53'10	
	-4 Oct 10 j 06:53	0°♎			01 Oct 03 j 01:14	0°♎		
	-4 Nov 19 j 19:47	0°♎		morning rise	01 Oct 25 j 14:48	15°♎30'13		
	-4 Dec 30 j 04:52	0°♎			01 Nov 15 j 06:38	0°♎		
	-3 Feb 09 j 14:54	0°♎		desc. node	01 Dec 18 j 22:55	24°♎14'07		
asc. node	-3 Feb 25 j 17:05	11°♎21'20			01 Dec 26 j 19:47	0°♎		
	-3 Mar 24 j 16:22	0°♎			02 Feb 05 j 01:57	0°♎		
	-3 May 08 j 11:36	0°♎			02 Mar 16 j 15:48	0°♎		
evening set	-3 May 09 j 03:51	0°♎26'43			02 Apr 25 j 11:03	0°♎		
	-3 Jun 23 j 16:39	0°♎			02 Jun 05 j 23:33	0°♎		
					02 Jul 22 j 15:09	0°♎		
conjunction	-3 Jun 27 j 09:32	2°♎22'37	0°58'55	retrograde	02 Oct 01 j 11:45	25°♎02'10		
minimum elong	-3 Jun 27 j 08:21	2°♎20'43	0°58'55	asc. node	02 Oct 18 j 14:30	22°♎55'37		
max. Earth dist.	-3 Jul 04 j 12:17	6°♎56'04	2.66276 AU	min. Earth dist.	02 Nov 02 j 21:51	17°♎56'01	0.56178 AU	
	-3 Aug 09 j 16:52	0°♎		opposition	02 Nov 09 j 12:09	15°♎22'12	0°59'48	
morning rise	-3 Aug 12 j 09:55	1°♎43'22		greatest brilliancy	02 Nov 09 j 02:45	15°♎31'20	-1.8m	
	-3 Sep 25 j 22:16	0°♎		direct	02 Dec 15 j 16:39	7°♎10'30		
	-3 Nov 12 j 03:18	0°♎			03 Feb 27 j 10:44	0°♎		
	-3 Dec 29 j 15:13	0°♎			03 Apr 24 j 07:40	0°♎		
	-2 Feb 16 j 14:35	0°♎			03 Jun 13 j 20:44	0°♎		
desc. node	-2 Mar 16 j 01:20	15°♎43'16			03 Jul 31 j 11:36	0°♎		
	-2 Apr 13 j 04:48	0°♎		evening set	03 Sep 02 j 08:23	21°♎43'10		
retrograde	-2 Jun 04 j 08:57	13°♎55'02			03 Sep 14 j 12:53	0°♎		
opposition	-2 Jul 04 j 12:11	8°♎56'36	-6°-13'-58	max. Earth dist.	03 Sep 18 j 18:54	2°♎55'07	2.53120 AU	
greatest brilliancy	-2 Jul 05 j 01:00	8°♎48'04	-2.8m					
min. Earth dist.	-2 Jul 06 j 12:04	8°♎24'41	0.37756 AU	conjunction	03 Oct 21 j 17:20	26°♎03'11	0°09'35	
direct	-2 Aug 04 j 01:21	3°♎46'00		minimum elong	03 Oct 21 j 17:47	26°♎04'00	0°09'34	
	-2 Oct 15 j 14:51	0°♎		behind sun begin	03 Oct 21 j 00:04	25°♎32'16		
	-2 Dec 02 j 14:29	0°♎		behind sun end	03 Oct 22 j 11:31	26°♎35'45		
asc. node	-1 Jan 13 j 14:52	27°♎45'06			03 Oct 27 j 05:07	0°♎		
	-1 Jan 17 j 00:18	0°♎		desc. node	03 Nov 05 j 21:51	7°♎01'53		

Planetary Phenomena of Mars from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 41

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	03 Dec 06 j 21:29	0°♊		opposition	09 Feb 23 j 16:12	3°♎19'25	4°10'47
morning rise	03 Dec 14 j 04:35	5°♊30'36		greatest brilliancy	09 Feb 24 j 14:04	2°♎58'15	-1.4m
	04 Jan 15 j 03:41	0°♊		min. Earth dist.	09 Feb 28 j 11:05	1°♎28'17	0.63589 AU
	04 Feb 22 j 17:21	0°♋			09 Mar 04 j 08:36	30°♎	
	04 Apr 01 j 10:49	0°♌		direct	09 Apr 06 j 00:07	23°♎19'55	
	04 May 11 j 07:34	0°♍			09 May 11 j 03:01	0°♎	
	04 Jun 22 j 13:16	0°♎		desc. node	09 Jun 27 j 19:08	22°♎23'38	
	04 Aug 08 j 09:25	0°♏			09 Jul 10 j 19:38	0°♏	
asc. node	04 Sep 04 j 12:57	14°♏57'26			09 Aug 25 j 16:47	0°♏	
	04 Oct 11 j 02:07	0°♐			09 Oct 05 j 22:13	0°♐	
retrograde	04 Nov 07 j 00:36	4°♐15'27			09 Nov 13 j 22:31	0°♐	
	04 Dec 02 j 02:58	30°♐			09 Dec 22 j 04:53	0°♐	
min. Earth dist.	04 Dec 14 j 05:10	25°♐29'54	0.65005 AU		10 Jan 29 j 20:18	0°♐	
opposition	04 Dec 17 j 04:06	24°♐18'50	3°35'56	evening set	10 Feb 26 j 18:27	21°♐07'32	
greatest brilliancy	04 Dec 16 j 14:33	24°♐32'25	-1.4m		10 Mar 10 j 17:48	0°♑	
direct	05 Jan 25 j 10:39	14°♐59'39			10 Apr 21 j 11:42	0°♑	
	05 Mar 24 j 06:29	0°♑					
	05 May 22 j 00:11	0°♒		conjunction	10 Apr 27 j 15:40	4°♑18'32	0°00'09
	05 Jul 10 j 21:43	0°♒		minimum elong	10 Apr 27 j 15:40	4°♑18'32	0°00'10
	05 Aug 25 j 14:20	0°♓		behind sun begin	10 Apr 26 j 16:16	3°♑37'47	
desc. node	05 Sep 22 j 20:43	19°♓41'16		behind sun end	10 Apr 28 j 15:05	4°♑59'15	
	05 Oct 07 j 05:05	0°♓		asc. node	10 Apr 27 j 09:41	4°♑08'09	
evening set	05 Oct 18 j 07:18	8°♓06'38		max. Earth dist.	10 May 29 j 12:51	26°♑07'27	2.56099 AU
max. Earth dist.	05 Nov 08 j 10:25	23°♓52'32	2.40534 AU		10 Jun 04 j 07:31	0°♒	
	05 Nov 16 j 12:15	0°♓		morning rise	10 Jun 20 j 18:28	10°♒54'56	
					10 Jul 20 j 03:32	0°♓	
conjunction	05 Dec 15 j 11:28	22°♓20'03	0°-49'-10		10 Sep 05 j 20:21	0°♒	
minimum elong	05 Dec 15 j 08:53	22°♓15'01	0°49'09		10 Oct 25 j 21:10	0°♒	
	05 Dec 25 j 06:55	0°♓			10 Dec 20 j 12:45	0°♓	
	06 Feb 01 j 09:59	0°♈		retrograde	11 Mar 01 j 14:47	21°♓15'36	
morning rise	06 Feb 20 j 16:20	15°♈07'51		opposition	11 Apr 06 j 11:52	13°♓43'53	1°52'21
	06 Mar 11 j 18:51	0°♈		greatest brilliancy	11 Apr 07 j 08:56	13°♓24'54	-1.9m
	06 Apr 20 j 06:21	0°♉		min. Earth dist.	11 Apr 14 j 13:05	10°♓50'13	0.53404 AU
	06 May 31 j 16:24	0°♉		direct	11 May 15 j 23:20	4°♓33'40	
	06 Jul 14 j 21:30	0°♊		desc. node	11 May 15 j 17:49	4°♓33'41	
asc. node	06 Jul 23 j 11:40	5°♊33'14			11 Jul 27 j 00:40	0°♓	
	06 Sep 01 j 11:58	0°♋			11 Sep 11 j 00:30	0°♓	
	06 Nov 01 j 16:05	0°♌			11 Oct 21 j 21:19	0°♓	
retrograde	06 Dec 11 j 13:47	8°♌13'27			11 Nov 30 j 06:43	0°♓	
	07 Jan 17 j 02:25	30°♌			12 Jan 08 j 20:31	0°♓	
opposition	07 Jan 20 j 11:59	28°♌39'14	4°34'34		12 Feb 18 j 14:51	0°♓	
greatest brilliancy	07 Jan 20 j 14:54	28°♌36'20	-1.2m	asc. node	12 Mar 14 j 08:30	17°♓36'45	
min. Earth dist.	07 Jan 21 j 09:55	28°♌17'26	0.67584 AU		12 Apr 01 j 03:30	0°♔	
direct	07 Mar 02 j 12:29	18°♌45'20		evening set	12 Apr 21 j 11:31	13°♔53'24	
	07 Apr 19 j 23:42	0°♌			12 May 15 j 13:15	0°♔	
	07 Jun 18 j 07:42	0°♍					
	07 Aug 05 j 06:15	0°♍		conjunction	12 Jun 11 j 20:33	17°♔54'41	0°47'35
desc. node	07 Aug 10 j 19:42	3°♍43'00		minimum elong	12 Jun 11 j 19:08	17°♔52'22	0°47'34
	07 Sep 17 j 11:49	0°♎		max. Earth dist.	12 Jun 25 j 06:14	26°♔35'25	2.64454 AU
	07 Oct 27 j 20:08	0°♎			12 Jun 30 j 13:15	0°♕	
	07 Dec 05 j 11:41	0°♏		morning rise	12 Jul 29 j 07:37	18°♕23'55	
evening set	07 Dec 20 j 02:41	11°♏31'31			12 Aug 16 j 14:23	0°♌	
	08 Jan 12 j 11:57	0°♏			12 Oct 03 j 06:10	0°♌	
	08 Feb 19 j 20:16	0°♐			12 Nov 20 j 13:45	0°♌	
					13 Jan 09 j 14:54	0°♌	
conjunction	08 Feb 25 j 10:04	4°♐18'02	0°-56'-38		13 Mar 07 j 06:13	0°♌	
minimum elong	08 Feb 25 j 12:47	4°♐23'16	0°56'37	desc. node	13 Apr 01 j 16:46	10°♌00'07	
	08 Mar 30 j 09:02	0°♑		retrograde	13 May 03 j 09:03	15°♌30'18	
max. Earth dist.	08 Apr 16 j 09:40	12°♑31'31	2.43306 AU	opposition	13 Jun 03 j 19:20	10°♌00'59	-3°-48'-30
morning rise	08 May 01 j 07:00	23°♑16'10		greatest brilliancy	13 Jun 04 j 22:45	9°♌40'54	-2.6m
	08 May 10 j 18:23	0°♒		min. Earth dist.	13 Jun 10 j 03:07	8°♌10'33	0.40637 AU
asc. node	08 Jun 09 j 11:27	20°♒35'14		direct	13 Jul 07 j 03:10	3°♌40'06	
	08 Jun 23 j 10:47	0°♒			13 Sep 16 j 12:07	0°♓	
	08 Aug 08 j 19:10	0°♓			13 Nov 01 j 10:50	0°♓	
	08 Sep 27 j 19:19	0°♌			13 Dec 14 j 11:29	0°♓	
	08 Nov 26 j 09:03	0°♍			14 Jan 26 j 14:33	0°♍	
retrograde	09 Jan 16 j 01:52	12°♍08'19		asc. node	14 Jan 30 j 08:00	2°♍33'43	

Planetary Phenomena of Mars from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 42

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	14 Mar 11 j 20:43	0°♄		morning rise	18 Nov 23 j 00:33	14°♍15'42	
	14 Apr 26 j 11:36	0°♂			18 Dec 14 j 07:23	0°♂	
evening set	14 Jun 03 j 11:42	24°♂27'17			19 Jan 22 j 21:24	0°♂	
	14 Jun 12 j 04:06	0°♂			19 Mar 02 j 18:22	0°♂	
max. Earth dist.	14 Jul 18 j 22:38	23°♂25'07	2.67448 AU		19 Apr 10 j 18:42	0°♂	
					19 May 21 j 00:13	0°♂	
conjunction	14 Jul 20 j 12:21	24°♂25'10	1°08'36		19 Jul 03 j 01:45	0°♂	
minimum elong	14 Jul 20 j 11:55	24°♂24'29	1°08'36		19 Aug 22 j 00:36	0°♂	
	14 Jul 29 j 06:38	0°♂		asc. node	19 Sep 22 j 05:19	13°♂52'09	
morning rise	14 Sep 03 j 07:04	23°♂02'01		retrograde	19 Oct 25 j 02:49	20°♂10'52	
	14 Sep 14 j 02:49	0°♂		min. Earth dist.	19 Nov 29 j 13:43	12°♂00'15	0.62244 AU
	14 Oct 30 j 05:59	0°♂		greatest brilliancy	19 Dec 03 j 08:16	10°♂29'59	-1.5m
	14 Dec 14 j 13:47	0°♂		opposition	19 Dec 04 j 00:22	10°♂13'56	2°49'18
	15 Jan 28 j 07:24	0°♂		direct	20 Jan 11 j 05:49	1°♂16'20	
desc. node	15 Feb 17 j 16:34	13°♂43'03			20 Apr 06 j 16:56	0°♂	
	15 Mar 14 j 00:02	0°♂			20 May 30 j 17:10	0°♂	
	15 Apr 29 j 11:25	0°♂			20 Jul 18 j 11:00	0°♂	
	15 Jun 30 j 00:42	0°♂			20 Sep 01 j 19:38	0°♂	
retrograde	15 Jul 21 j 22:42	3°♂10'06		evening set	20 Sep 28 j 13:45	18°♂38'18	
	15 Aug 12 j 20:27	30°♂42'28		desc. node	20 Oct 09 j 13:23	26°♂29'34	
min. Earth dist.	15 Aug 17 j 13:08	28°♂42'28	0.39316 AU	max. Earth dist.	20 Oct 13 j 09:05	29°♂15'05	2.45483 AU
greatest brilliancy	15 Aug 21 j 23:01	27°♂25'32	-2.7m		20 Oct 14 j 09:53	0°♂	
opposition	15 Aug 23 j 08:41	27°♂00'53	-6°-5'-16				
direct	15 Sep 22 j 10:32	21°♂42'20		conjunction	20 Nov 21 j 12:33	28°♂15'23	0°-27'-7
	15 Oct 30 j 17:08	0°♂		minimum elong	20 Nov 21 j 10:58	28°♂12'23	0°27'07
asc. node	15 Dec 18 j 06:57	24°♂00'15			20 Nov 23 j 19:46	0°♂	
	15 Dec 28 j 18:17	0°♂			21 Jan 01 j 18:01	0°♂	
	16 Feb 16 j 14:20	0°♂		morning rise	21 Jan 22 j 04:33	16°♂00'17	
	16 Apr 05 j 02:06	0°♂		greatest brilliancy	21 Feb 03 j 06:44	25°♂30'12	1.2m
	16 May 23 j 07:28	0°♂			21 Feb 09 j 00:08	0°♂	
evening set	16 Jul 10 j 13:44	0°♂19'24			21 Mar 19 j 11:07	0°♂	
	16 Jul 10 j 01:29	0°♂			21 Apr 28 j 00:21	0°♂	
max. Earth dist.	16 Aug 10 j 16:03	20°♂11'52	2.65009 AU		21 Jun 08 j 14:09	0°♂	
					21 Jul 23 j 08:43	0°♂	
conjunction	16 Aug 25 j 08:44	29°♂43'18	1°02'45	asc. node	21 Aug 09 j 03:32	10°♂28'50	
minimum elong	16 Aug 25 j 09:39	29°♂44'48	1°02'45		21 Sep 12 j 04:42	0°♂	
	16 Aug 25 j 18:59	0°♂		retrograde	21 Nov 28 j 04:26	25°♂27'59	
morning rise	16 Oct 09 j 14:51	29°♂42'36		opposition	22 Jan 07 j 07:55	15°♂42'15	4°21'31
	16 Oct 10 j 01:10	0°♂		greatest brilliancy	22 Jan 07 j 03:22	15°♂46'48	-1.2m
	16 Nov 22 j 16:04	0°♂		min. Earth dist.	22 Jan 06 j 17:24	15°♂56'46	0.67361 AU
	17 Jan 03 j 18:42	0°♂		direct	22 Feb 16 j 19:46	5°♂58'47	
desc. node	17 Jan 04 j 15:12	0°♂37'06			22 May 04 j 18:10	0°♂	
	17 Feb 13 j 16:43	0°♂			22 Jun 27 j 10:06	0°♂	
	17 Mar 26 j 00:10	0°♂			22 Aug 13 j 04:38	0°♂	
	17 May 05 j 18:26	0°♂		desc. node	22 Aug 27 j 12:43	9°♂46'45	
	17 Jun 18 j 05:20	0°♂			22 Sep 25 j 02:19	0°♂	
	17 Aug 13 j 00:07	0°♂			22 Nov 04 j 09:11	0°♂	
retrograde	17 Sep 14 j 15:34	6°♂45'06		evening set	22 Nov 23 j 09:20	14°♂38'19	
min. Earth dist.	17 Oct 14 j 22:30	0°♂27'26	0.51360 AU		22 Dec 13 j 01:05	0°♂	
	17 Oct 16 j 04:16	30°♂45'06			23 Jan 20 j 01:22	0°♂	
opposition	17 Oct 22 j 15:00	27°♂34'46	0°-37'-39				
greatest brilliancy	17 Oct 22 j 08:29	27°♂40'52	-2.0m	conjunction	23 Jan 27 j 17:01	6°♂02'00	-1°-5'-16
asc. node	17 Nov 04 j 05:44	23°♂17'06		minimum elong	23 Jan 27 j 17:15	6°♂02'28	1°05'16
direct	17 Nov 26 j 04:37	20°♂02'41			23 Feb 27 j 08:42	0°♂	
	18 Jan 09 j 07:26	0°♂		max. Earth dist.	23 Mar 09 j 13:27	7°♂51'51	2.38345 AU
	18 Mar 11 j 16:32	0°♂		morning rise	23 Apr 07 j 06:23	29°♂35'27	
	18 May 02 j 21:10	0°♂			23 Apr 07 j 19:33	0°♂	
	18 Jun 21 j 06:09	0°♂			23 May 19 j 03:11	0°♂	
	18 Aug 07 j 11:23	0°♂		asc. node	23 Jun 27 j 01:52	26°♂47'38	
evening set	18 Aug 17 j 13:30	6°♂35'42			23 Jul 01 j 21:15	0°♂	
max. Earth dist.	18 Sep 06 j 05:38	19°♂39'58	2.57364 AU		23 Aug 17 j 17:48	0°♂	
	18 Sep 21 j 11:47	0°♂			23 Oct 08 j 19:13	0°♂	
				retrograde	24 Jan 02 j 08:25	28°♂52'36	
conjunction	18 Oct 04 j 03:26	8°♂42'32	0°29'34	opposition	24 Feb 10 j 14:44	19°♂43'12	4°30'24
minimum elong	18 Oct 04 j 04:33	8°♂44'27	0°29'33	greatest brilliancy	24 Feb 11 j 05:50	19°♂28'23	-1.3m
	18 Nov 03 j 08:07	0°♂		min. Earth dist.	24 Feb 13 j 21:38	18°♂25'49	0.65939 AU
desc. node	18 Nov 22 j 13:40	13°♂55'46		direct	24 Mar 23 j 00:37	9°♂41'40	

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	24 May 29 j 15:22	0°♈		conjunction	29 Jul 05 j 23:13	10°♊48'43	1°03'40
desc. node	24 Jul 14 j 10:54	25°♈55'25		minimum elong	29 Jul 05 j 22:17	10°♊47'13	1°03'39
	24 Jul 20 j 22:24	0°♊		max. Earth dist.	29 Jul 09 j 20:28	13°♊17'28	2.66922 AU
	24 Sep 03 j 08:36	0°♈			29 Aug 05 j 01:53	0°♈	
	24 Oct 14 j 02:41	0°♈		morning rise	29 Aug 20 j 09:54	9°♈45'43	
	24 Nov 21 j 21:59	0°♈			29 Sep 21 j 03:12	0°♈	
	24 Dec 30 j 00:34	0°♈			29 Nov 06 j 21:14	0°♊	
evening set	25 Jan 31 j 16:45	25°♈31'39			29 Dec 23 j 10:19	0°♈	
	25 Feb 06 j 11:50	0°♈			30 Feb 08 j 09:01	0°♈	
	25 Mar 18 j 04:26	0°♈		desc. node	30 Mar 06 j 07:57	16°♈08'53	
					30 Mar 29 j 13:57	0°♈	
conjunction	25 Apr 05 j 17:10	13°♈34'02	0°-23'-31		30 Jun 05 j 03:39	0°♈	
minimum elong	25 Apr 05 j 18:46	13°♈36'56	0°23'31	retrograde	30 Jun 22 j 08:34	1°♈53'32	
	25 Apr 28 j 17:16	0°♈			30 Jul 09 j 19:42	30°♈	
asc. node	25 May 14 j 02:12	10°♈43'47		opposition	30 Jul 22 j 20:21	26°♈47'16	-6°-51'-5
max. Earth dist.	25 May 15 j 23:47	12°♈02'32	2.51451 AU	min. Earth dist.	30 Jul 21 j 16:54	27°♈05'35	0.37458 AU
morning rise	25 Jun 02 j 23:54	24°♈20'22		greatest brilliancy	30 Jul 22 j 13:55	26°♈51'34	-2.9m
	25 Jun 11 j 09:48	0°♈		direct	30 Aug 21 j 13:16	21°♈51'06	
	25 Jul 27 j 07:24	0°♈			30 Sep 27 j 17:35	0°♈	
	25 Sep 13 j 13:46	0°♈			30 Nov 23 j 15:37	0°♈	
	25 Nov 04 j 13:44	0°♈		asc. node	31 Jan 03 j 22:29	25°♈53'24	
	26 Jan 10 j 09:35	0°♈			31 Jan 10 j 08:25	0°♈	
retrograde	26 Feb 10 j 19:15	5°♈10'59			31 Feb 25 j 23:46	0°♈	
	26 Mar 11 j 18:58	30°♈			31 Apr 14 j 00:08	0°♈	
opposition	26 Mar 19 j 23:08	27°♈04'01	3°04'17		31 May 31 j 11:28	0°♈	
greatest brilliancy	26 Mar 21 j 01:38	26°♈39'13	-1.7m	evening set	31 Jun 27 j 00:26	16°♈45'28	
min. Earth dist.	26 Mar 26 j 22:17	24°♈27'58	0.58026 AU		31 Jul 17 j 21:39	0°♈	
direct	26 Apr 29 j 12:29	17°♈24'28		max. Earth dist.	31 Aug 02 j 08:24	9°♈50'57	2.66614 AU
desc. node	26 Jun 01 j 09:27	23°♈37'06					
	26 Jun 17 j 06:36	0°♈		conjunction	31 Aug 11 j 22:48	16°♈00'12	1°08'14
	26 Aug 09 j 06:52	0°♈		minimum elong	31 Aug 11 j 23:14	16°♈00'54	1°08'13
	26 Sep 21 j 08:21	0°♈			31 Sep 02 j 14:54	0°♈	
	26 Oct 31 j 03:56	0°♈		morning rise	31 Sep 25 j 15:03	15°♈03'06	
	26 Dec 08 j 22:35	0°♈			31 Oct 18 j 03:17	0°♈	
	27 Jan 17 j 00:40	0°♈			31 Dec 01 j 06:37	0°♈	
	27 Feb 26 j 08:29	0°♈			32 Jan 13 j 03:08	0°♈	
asc. node	27 Apr 01 j 01:13	24°♈06'17		desc. node	32 Jan 22 j 07:35	6°♈31'53	
evening set	27 Apr 02 j 23:23	25°♈27'13			32 Feb 23 j 23:55	0°♈	
	27 Apr 09 j 11:42	0°♈			32 Apr 05 j 12:14	0°♈	
	27 May 23 j 14:15	0°♈			32 May 18 j 04:52	0°♈	
					32 Jul 06 j 07:05	0°♈	
conjunction	27 May 27 j 03:34	2°♈21'52	0°32'08	retrograde	32 Aug 26 j 14:08	15°♈23'45	
minimum elong	27 May 27 j 02:15	2°♈19'41	0°32'07	min. Earth dist.	32 Sep 23 j 19:34	9°♈57'09	0.46217 AU
max. Earth dist.	27 Jun 16 j 07:25	15°♈38'30	2.61792 AU	opposition	32 Oct 01 j 22:43	7°♈06'07	-2°-40'-1
	27 Jul 08 j 10:43	0°♈		greatest brilliancy	32 Sep 30 j 20:39	7°♈29'02	-2.3m
morning rise	27 Jul 15 j 15:51	4°♈38'06		direct	32 Nov 03 j 16:05	0°♈23'07	
	27 Aug 24 j 15:04	0°♈		asc. node	32 Nov 20 j 21:46	2°♈12'00	
	27 Oct 11 j 22:07	0°♈			33 Jan 27 j 13:44	0°♈	
	27 Nov 30 j 22:15	0°♈			33 Mar 21 j 17:25	0°♈	
	28 Jan 25 j 00:14	0°♈			33 May 10 j 20:07	0°♈	
retrograde	28 Apr 05 j 08:48	21°♈43'36			33 Jun 28 j 10:01	0°♈	
desc. node	28 Apr 18 j 08:56	20°♈39'22		evening set	33 Aug 02 j 11:55	22°♈17'48	
opposition	28 May 08 j 14:01	15°♈23'13	-1°-9'-8		33 Aug 14 j 09:13	0°♈	
greatest brilliancy	28 May 09 j 03:14	15°♈12'28	-2.4m	max. Earth dist.	33 Aug 26 j 04:45	7°♈44'17	2.60970 AU
min. Earth dist.	28 May 16 j 19:30	12°♈43'00	0.45314 AU				
direct	28 Jun 13 j 22:45	7°♈39'56		conjunction	33 Sep 17 j 22:26	22°♈52'44	0°45'43
	28 Aug 17 j 14:36	0°♈		minimum elong	33 Sep 17 j 23:43	22°♈54'53	0°45'43
	28 Oct 02 j 19:01	0°♈			33 Sep 28 j 10:54	0°♈	
	28 Nov 13 j 10:21	0°♈		morning rise	33 Nov 04 j 08:01	25°♈35'12	
	28 Dec 24 j 10:45	0°♈			33 Nov 10 j 13:20	0°♈	
	29 Feb 04 j 07:30	0°♈		desc. node	33 Dec 09 j 06:55	20°♈43'54	
asc. node	29 Feb 15 j 23:13	8°♈10'31			33 Dec 21 j 21:25	0°♈	
	29 Mar 19 j 16:41	0°♈			34 Jan 30 j 21:19	0°♈	
	29 May 03 j 17:26	0°♈			34 Mar 11 j 03:53	0°♈	
evening set	29 May 18 j 15:51	9°♈44'36			34 Apr 19 j 14:12	0°♈	
	29 Jun 19 j 01:36	0°♈			34 May 30 j 10:55	0°♈	
					34 Jul 14 j 03:45	0°♈	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	34 Sep 12 j 02:52	0°♊			39 Jun 11 j 17:24	0°♎		
asc. node	34 Oct 08 j 19:54	4°♊56'01			39 Jul 30 j 20:24	0°♏		
retrograde	34 Oct 10 j 10:44	4°♊57'06		desc. node	39 Aug 01 j 03:27	0°♏50'57		
	34 Nov 06 j 02:34	30°♋			39 Sep 12 j 11:08	0°♐		
min. Earth dist.	34 Nov 12 j 23:54	27°♋26'18	0.58581 AU		39 Oct 22 j 22:44	0°♑		
opposition	34 Nov 18 j 20:41	25°♋07'47	1°45'56		39 Nov 30 j 15:26	0°♒		
greatest brilliancy	34 Nov 18 j 06:40	25°♋21'35	-1.7m	evening set	40 Jan 04 j 20:42	27°♒47'18		
direct	34 Dec 25 j 20:17	16°♋37'31			40 Jan 07 j 15:58	0°♓		
	35 Feb 17 j 05:26	0°♊			40 Feb 15 j 00:32	0°♋		
	35 Apr 18 j 04:25	0°♌						
	35 Jun 08 j 17:31	0°♍		conjunction	40 Mar 11 j 18:52	19°♋40'45	0°-46'-17	
	35 Jul 26 j 17:20	0°♎		minimum elong	40 Mar 11 j 21:45	19°♋46'13	0°46'15	
	35 Sep 09 j 21:29	0°♏			40 Mar 25 j 13:47	0°♐		
evening set	35 Sep 11 j 19:35	1°♏18'54		max. Earth dist.	40 Apr 28 j 23:27	25°♐02'22	2.46291 AU	
max. Earth dist.	35 Sep 27 j 00:37	11°♏50'56	2.50530 AU		40 May 05 j 23:13	0°♑		
	35 Oct 22 j 13:31	0°♐		morning rise	40 May 13 j 22:46	5°♑36'35		
desc. node	35 Oct 27 j 05:28	3°♐22'43		asc. node	40 May 30 j 17:44	17°♑13'53		
					40 Jun 18 j 14:23	0°♊		
conjunction	35 Nov 01 j 12:28	7°♐13'57	0°-3'-23		40 Aug 03 j 16:44	0°♌		
minimum elong	35 Nov 01 j 12:17	7°♐13'37	0°03'25		40 Sep 21 j 20:47	0°♍		
behind sun begin	35 Oct 31 j 14:15	6°♐33'24			40 Nov 16 j 09:45	0°♎		
behind sun end	35 Nov 02 j 10:19	7°♐53'52		retrograde	41 Jan 25 j 00:25	20°♎32'52		
	35 Dec 02 j 03:57	0°♑		opposition	41 Mar 04 j 04:11	11°♎57'31	3°51'41	
morning rise	35 Dec 27 j 12:58	19°♑21'11		greatest brilliancy	41 Mar 05 j 04:48	11°♎33'55	-1.5m	
	36 Jan 10 j 07:33	0°♒		min. Earth dist.	41 Mar 09 j 18:37	9°♎48'49	0.61861 AU	
	36 Feb 17 j 18:16	0°♓		direct	41 Apr 14 j 08:11	2°♎02'23		
	36 Mar 27 j 08:41	0°♋		desc. node	41 Jun 18 j 01:40	21°♎47'19		
	36 May 06 j 01:18	0°♌			41 Jul 03 j 06:15	0°♏		
	36 Jun 16 j 22:13	0°♍			41 Aug 19 j 18:12	0°♐		
	36 Aug 01 j 16:38	0°♎			41 Sep 30 j 12:06	0°♑		
asc. node	36 Aug 25 j 19:19	14°♎09'18			41 Nov 08 j 18:14	0°♒		
	36 Sep 26 j 10:17	0°♏			41 Dec 17 j 04:01	0°♓		
retrograde	36 Nov 14 j 19:52	12°♏26'36			42 Jan 24 j 22:05	0°♋		
min. Earth dist.	36 Dec 22 j 21:40	3°♏23'32	0.66116 AU		42 Mar 05 j 22:01	0°♌		
opposition	36 Dec 25 j 00:25	2°♏32'40	3°56'38	evening set	42 Mar 12 j 05:23	4°♌37'01		
greatest brilliancy	36 Dec 24 j 13:32	2°♏43'35	-1.3m		42 Apr 16 j 17:48	0°♍		
	36 Dec 31 j 11:19	30°♋		asc. node	42 Apr 17 j 16:58	0°♋40'31		
direct	37 Feb 02 j 18:33	23°♊03'31						
	37 Mar 11 j 19:08	0°♌		conjunction	42 May 08 j 21:45	15°♋19'44	0°12'48	
	37 May 15 j 17:05	0°♍		minimum elong	42 May 08 j 21:04	15°♋18'35	0°12'49	
	37 Jul 05 j 16:41	0°♎		behind sun begin	42 May 08 j 07:34	14°♋55'30		
	37 Aug 20 j 17:54	0°♏		behind sun end	42 May 09 j 10:35	15°♋41'39		
desc. node	37 Sep 13 j 04:18	16°♏12'28			42 May 30 j 14:48	0°♊		
	37 Oct 02 j 11:17	0°♐		max. Earth dist.	42 Jun 05 j 09:17	3°♊50'50	2.58334 AU	
evening set	37 Oct 30 j 13:11	20°♐44'51		morning rise	42 Jun 30 j 03:40	20°♊08'04		
	37 Nov 11 j 18:32	0°♑			42 Jul 15 j 09:40	0°♌		
max. Earth dist.	37 Dec 02 j 05:34	15°♑44'15	2.38243 AU		42 Aug 31 j 20:21	0°♍		
	37 Dec 20 j 12:20	0°♒			42 Oct 20 j 02:06	0°♎		
					42 Dec 11 j 22:02	0°♏		
conjunction	37 Dec 30 j 09:03	7°♒45'02	0°-58'-38		43 Feb 23 j 16:59	0°♐		
minimum elong	37 Dec 30 j 06:45	7°♒40'31	0°58'38	retrograde	43 Mar 13 j 14:40	1°♐48'43		
	38 Jan 27 j 14:13	0°♓			43 Mar 30 j 13:35	30°♋		
	38 Mar 06 j 22:06	0°♋		opposition	43 Apr 17 j 14:07	24°♏40'26	0°56'37	
morning rise	38 Mar 09 j 15:37	2°♋06'41		greatest brilliancy	43 Apr 18 j 02:20	24°♏29'45	-2.1m	
	38 Apr 15 j 08:40	0°♌		min. Earth dist.	43 Apr 25 j 23:31	21°♏44'27	0.50550 AU	
	38 May 26 j 16:25	0°♍		desc. node	43 May 06 j 00:35	18°♏39'31		
	38 Jul 09 j 15:13	0°♎		direct	43 May 26 j 04:11	15°♏54'49		
asc. node	38 Jul 13 j 19:02	2°♎43'45			43 Jul 15 j 09:52	0°♐		
	38 Aug 26 j 08:27	0°♏			43 Sep 03 j 13:09	0°♑		
	38 Oct 21 j 09:32	0°♍			43 Oct 15 j 13:04	0°♒		
retrograde	38 Dec 19 j 09:09	16°♍00'30			43 Nov 24 j 12:00	0°♓		
opposition	39 Jan 28 j 02:54	6°♍34'17	4°36'33		44 Jan 03 j 10:57	0°♋		
greatest brilliancy	39 Jan 28 j 10:14	6°♍27'01	-1.2m		44 Feb 13 j 12:33	0°♌		
min. Earth dist.	39 Jan 29 j 21:18	5°♍52'18	0.67279 AU	asc. node	44 Mar 04 j 15:50	14°♌17'26		
	39 Feb 15 j 07:22	30°♋			44 Mar 27 j 06:41	0°♍		
direct	39 Mar 10 j 08:19	26°♋36'17		evening set	44 May 01 j 17:42	23°♋57'27		
	39 Apr 04 j 04:12	0°♍			44 May 10 j 20:28	0°♎		

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

conjunction	44 Jun 20 j 20:18	26°II43'43	0°54'39		49 Jul 29 j 02:57	0°8	
minimum elong	44 Jun 20 j 18:59	26°II41'37	0°54'38	retrograde	49 Sep 24 j 11:54	17°853'25	
	44 Jun 25 j 22:14	0°8		asc. node	49 Oct 25 j 13:01	11°817'44	
max. Earth dist.	44 Jun 30 j 18:42	3°807'03	2.65564 AU	min. Earth dist.	49 Oct 25 j 22:56	11°808'26	0.54086 AU
morning rise	44 Aug 06 j 10:29	26°830'42		opposition	49 Nov 02 j 02:03	8°824'35	0°21'31
	44 Aug 11 j 22:17	0°8		greatest brilliancy	49 Nov 01 j 22:12	8°828'16	-1.9m
	44 Sep 28 j 07:50	0°8		direct	49 Dec 07 j 14:12	0°829'24	
	44 Nov 14 j 23:16	0°8			50 Mar 04 j 05:08	0°II	
	45 Jan 02 j 09:46	0°8			50 Apr 27 j 06:58	0°8	
	45 Feb 22 j 16:38	0°8			50 Jun 16 j 07:46	0°8	
desc. node	45 Mar 23 j 01:11	14°837'54			50 Aug 02 j 19:24	0°8	
	45 May 05 j 22:59	0°8		evening set	50 Aug 26 j 11:13	15°832'45	
retrograde	45 May 21 j 03:27	1°822'35		max. Earth dist.	50 Sep 13 j 04:45	27°828'57	2.55104 AU
	45 Jun 05 j 00:24	30°837'54			50 Sep 16 j 21:23	0°8	
opposition	45 Jun 20 j 14:36	26°815'53	-5°-18'-33				
greatest brilliancy	45 Jun 21 j 14:15	25°859'38	-2.8m	conjunction	50 Oct 13 j 22:23	18°846'44	0°18'29
min. Earth dist.	45 Jun 24 j 20:31	25°806'00	0.38709 AU	minimum elong	50 Oct 13 j 23:11	18°848'08	0°18'29
direct	45 Jul 22 j 06:16	20°839'06			50 Oct 29 j 16:35	0°8	
	45 Aug 30 j 13:58	0°8		desc. node	50 Nov 12 j 21:37	10°817'38	
	45 Oct 23 j 06:54	0°8		morning rise	50 Dec 04 j 15:06	26°820'06	
	45 Dec 07 j 10:40	0°8			50 Dec 09 j 12:42	0°8	
asc. node	46 Jan 20 j 13:39	29°856'40			51 Jan 17 j 22:49	0°8	
	46 Jan 20 j 15:38	0°8			51 Feb 25 j 15:36	0°8	
	46 Mar 06 j 13:09	0°8			51 Apr 05 j 11:20	0°8	
	46 Apr 21 j 13:45	0°8			51 May 15 j 10:28	0°8	
	46 Jun 07 j 11:47	0°8			51 Jun 26 j 21:20	0°8	
evening set	46 Jun 12 j 05:12	3°800'13			51 Aug 13 j 14:36	0°8	
max. Earth dist.	46 Jul 24 j 04:43	29°841'14	2.67390 AU	asc. node	51 Sep 12 j 11:41	15°827'08	
	46 Jul 24 j 16:30	0°8		retrograde	51 Nov 02 j 04:45	28°848'49	
				min. Earth dist.	51 Dec 08 j 15:25	20°817'58	0.63889 AU
conjunction	46 Jul 28 j 17:10	2°834'01	1°09'38	opposition	51 Dec 12 j 05:55	18°851'22	3°18'27
minimum elong	46 Jul 28 j 17:04	2°833'51	1°09'37	greatest brilliancy	51 Dec 11 j 14:46	19°806'34	-1.4m
	46 Sep 09 j 11:20	0°8		direct	52 Jan 20 j 01:30	9°841'07	
morning rise	46 Sep 11 j 07:36	1°811'35			52 Mar 29 j 13:48	0°8	
	46 Oct 25 j 08:41	0°8			52 May 25 j 00:50	0°8	
	46 Dec 09 j 05:14	0°8			52 Jul 13 j 11:14	0°8	
	47 Jan 22 j 03:45	0°8			52 Aug 28 j 01:42	0°8	
desc. node	47 Feb 08 j 00:08	11°837'30		desc. node	52 Sep 29 j 20:33	22°853'28	
	47 Mar 06 j 13:19	0°8		evening set	52 Oct 09 j 11:43	29°849'16	
	47 Apr 19 j 09:58	0°8			52 Oct 09 j 17:38	0°8	
	47 Jun 06 j 12:32	0°8		max. Earth dist.	52 Oct 26 j 09:54	12°812'51	2.42701 AU
retrograde	47 Aug 05 j 08:02	19°852'09			52 Nov 19 j 02:58	0°8	
min. Earth dist.	47 Sep 01 j 01:28	15°810'23	0.41376 AU				
greatest brilliancy	47 Sep 06 j 17:41	13°823'31	-2.6m	conjunction	52 Dec 04 j 15:31	11°852'29	0°-40'-13
opposition	47 Sep 08 j 06:38	12°854'16	-4°-57'-24	minimum elong	52 Dec 04 j 13:14	11°848'05	0°40'12
direct	47 Oct 09 j 05:05	7°807'23			52 Dec 27 j 23:49	0°8	
asc. node	47 Dec 08 j 13:05	24°856'46			53 Feb 04 j 04:13	0°8	
	47 Dec 18 j 15:09	0°8		morning rise	53 Feb 07 j 12:43	2°838'19	
	48 Feb 09 j 21:46	0°8			53 Mar 14 j 13:23	0°8	
	48 Mar 30 j 14:32	0°8			53 Apr 23 j 00:34	0°8	
	48 May 18 j 09:15	0°8			53 Jun 03 j 10:25	0°8	
	48 Jul 05 j 09:39	0°8			53 Jul 17 j 18:29	0°8	
evening set	48 Jul 18 j 21:38	8°833'28		asc. node	53 Jul 30 j 10:10	8°805'33	
max. Earth dist.	48 Aug 16 j 05:55	26°846'11	2.63789 AU		53 Sep 05 j 00:13	0°8	
	48 Aug 21 j 05:09	0°8			53 Nov 11 j 21:31	0°8	
				retrograde	53 Dec 05 j 20:59	3°816'29	
conjunction	48 Sep 02 j 18:45	8°813'43	0°57'41		53 Dec 28 j 05:20	30°88	
minimum elong	48 Sep 02 j 19:52	8°815'33	0°57'41	opposition	54 Jan 14 j 22:03	23°836'51	4°30'33
	48 Oct 05 j 09:42	0°8		greatest brilliancy	54 Jan 14 j 21:38	23°837'16	-1.2m
morning rise	48 Oct 18 j 14:18	8°859'04		min. Earth dist.	54 Jan 15 j 04:09	23°830'45	0.67606 AU
	48 Nov 17 j 20:06	0°8		direct	54 Feb 24 j 17:19	13°846'59	
desc. node	48 Dec 25 j 22:26	27°817'32			54 Apr 26 j 00:40	0°8	
	48 Dec 29 j 15:36	0°8			54 Jun 21 j 13:51	0°8	
	49 Feb 08 j 04:56	0°8			54 Aug 08 j 01:08	0°8	
	49 Mar 20 j 01:51	0°8		desc. node	54 Aug 17 j 19:06	6°834'00	
	49 Apr 29 j 05:13	0°8			54 Sep 20 j 04:40	0°8	
	49 Jun 10 j 07:59	0°8			54 Oct 30 j 13:19	0°8	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening set	54 Dec 08 j 04:44	29° ♁ 58'11		max. Earth dist.	59 Jun 22 j 05:53	22° ♁ 32'57	2.63378 AU
	54 Dec 08 j 05:40	0° ♁			59 Jul 03 j 18:30	0° ♁	
	55 Jan 15 j 05:58	0° ♁		morning rise	59 Jul 24 j 03:49	13° ♁ 03'57	
					59 Aug 19 j 20:23	0° ♁	
conjunction	55 Feb 13 j 00:50	22° ♁ 36'13	-1°-2'-6		59 Oct 06 j 17:50	0° ♁	
minimum elong	55 Feb 13 j 02:45	22° ♁ 39'58	1°02'07		59 Nov 24 j 16:26	0° ♁	
	55 Feb 22 j 13:17	0° ♁			60 Jan 15 j 09:23	0° ♁	
	55 Apr 03 j 00:16	0° ♁			60 Mar 21 j 02:52	0° ♁	
max. Earth dist.	55 Apr 04 j 12:12	1° ♁ 06'52	2.40937 AU	desc. node	60 Apr 08 j 16:23	4° ♁ 12'00	
morning rise	55 Apr 21 j 20:28	13° ♁ 52'49		retrograde	60 Apr 20 j 12:41	5° ♁ 02'39	
	55 May 14 j 07:21	0° ♁			60 May 20 j 02:21	30° ♁	
asc. node	55 Jun 17 j 10:01	23° ♁ 36'05		opposition	60 May 22 j 18:50	29° ♁ 10'53	-2°-36'-57
	55 Jun 26 j 22:39	0° ♁		greatest brilliancy	60 May 23 j 19:00	28° ♁ 52'15	-2.5m
	55 Aug 12 j 09:40	0° ♁		min. Earth dist.	60 May 30 j 06:10	26° ♁ 53'39	0.42595 AU
	55 Oct 02 j 01:03	0° ♁		direct	60 Jun 26 j 12:39	22° ♁ 11'55	
	55 Dec 05 j 02:09	0° ♁			60 Jul 31 j 22:19	0° ♁	
retrograde	56 Jan 10 j 15:47	6° ♁ 52'00			60 Sep 23 j 21:56	0° ♁	
	56 Feb 13 j 01:59	30° ♁			60 Nov 06 j 10:09	0° ♁	
opposition	56 Feb 18 j 14:05	27° ♁ 53'30	4°20'31		60 Dec 18 j 08:50	0° ♁	
greatest brilliancy	56 Feb 19 j 09:09	27° ♁ 34'55	-1.3m		61 Jan 29 j 19:45	0° ♁	
min. Earth dist.	56 Feb 22 j 17:28	26° ♁ 16'43	0.64762 AU	asc. node	61 Feb 06 j 06:09	5° ♁ 09'57	
direct	56 Mar 30 j 23:56	17° ♁ 52'05			61 Mar 14 j 14:36	0° ♁	
	56 May 19 j 11:47	0° ♁			61 Apr 28 j 21:49	0° ♁	
desc. node	56 Jul 04 j 18:33	24° ♁ 01'05		evening set	61 May 27 j 20:24	18° ♁ 44'23	
	56 Jul 14 j 15:38	0° ♁			61 Jun 14 j 09:43	0° ♁	
	56 Aug 28 j 21:50	0° ♁					
	56 Oct 08 j 22:48	0° ♁		conjunction	61 Jul 14 j 09:08	19° ♁ 07'26	1°07'01
	56 Nov 16 j 21:13	0° ♁		minimum elong	61 Jul 14 j 08:29	19° ♁ 06'24	1°07'01
	56 Dec 25 j 01:39	0° ♁		max. Earth dist.	61 Jul 15 j 04:49	19° ♁ 38'46	2.67320 AU
	57 Feb 01 j 14:25	0° ♁			61 Jul 31 j 11:02	0° ♁	
evening set	57 Feb 15 j 18:45	10° ♁ 50'01		morning rise	61 Aug 28 j 09:18	17° ♁ 49'10	
	57 Mar 13 j 08:44	0° ♁			61 Sep 16 j 09:28	0° ♁	
					61 Nov 01 j 19:04	0° ♁	
conjunction	57 Apr 18 j 12:40	26° ♁ 09'53	0°-9'-46		61 Dec 17 j 15:02	0° ♁	
minimum elong	57 Apr 18 j 13:18	26° ♁ 10'59	0°09'47		62 Feb 01 j 04:43	0° ♁	
behind sun begin	57 Apr 17 j 17:42	25° ♁ 36'18		desc. node	62 Feb 24 j 15:58	15° ♁ 21'35	
behind sun end	57 Apr 19 j 08:53	26° ♁ 45'38			62 Mar 19 j 09:14	0° ♁	
	57 Apr 23 j 23:03	0° ♁			62 May 08 j 14:20	0° ♁	
asc. node	57 May 04 j 08:30	7° ♁ 16'11		retrograde	62 Jul 09 j 15:44	20° ♁ 08'08	
max. Earth dist.	57 May 23 j 23:54	20° ♁ 46'21	2.54118 AU	min. Earth dist.	62 Aug 05 j 23:08	15° ♁ 40'08	0.38122 AU
	57 Jun 06 j 16:03	0° ♁		opposition	62 Aug 09 j 23:24	14° ♁ 33'42	-6°-41'-1
morning rise	57 Jun 13 j 08:49	4° ♁ 28'22		greatest brilliancy	62 Aug 08 j 23:05	14° ♁ 50'32	-2.8m
	57 Jul 22 j 11:15	0° ♁		direct	62 Sep 08 j 13:49	9° ♁ 31'51	
	57 Sep 08 j 08:11	0° ♁			62 Nov 11 j 21:40	0° ♁	
	57 Oct 29 j 00:52	0° ♁		asc. node	62 Dec 25 j 05:32	24° ♁ 43'28	
	57 Dec 26 j 14:32	0° ♁			63 Jan 02 j 21:31	0° ♁	
retrograde	58 Feb 21 j 05:05	14° ♁ 34'34			63 Feb 20 j 01:32	0° ♁	
opposition	58 Mar 29 j 16:26	6° ♁ 46'09	2°25'58		63 Apr 08 j 19:32	0° ♁	
greatest brilliancy	58 Mar 30 j 16:55	6° ♁ 23'40	-1.8m		63 May 26 j 16:01	0° ♁	
min. Earth dist.	58 Apr 06 j 07:02	3° ♁ 58'43	0.55565 AU	evening set	63 Jul 05 j 09:26	25° ♁ 00'21	
	58 Apr 18 j 19:00	30° ♁			63 Jul 13 j 06:35	0° ♁	
direct	58 May 08 j 17:13	27° ♁ 20'28		max. Earth dist.	63 Aug 07 j 19:19	16° ♁ 17'33	2.65833 AU
desc. node	58 May 22 j 17:32	28° ♁ 36'17					
	58 May 29 j 08:40	0° ♁		conjunction	63 Aug 20 j 04:29	24° ♁ 16'23	1°05'32
	58 Aug 01 j 14:51	0° ♁		minimum elong	63 Aug 20 j 05:13	24° ♁ 17'34	1°05'31
	58 Sep 15 j 02:56	0° ♁			63 Aug 29 j 00:27	0° ♁	
	58 Oct 25 j 11:34	0° ♁		morning rise	63 Oct 04 j 02:39	23° ♁ 45'59	
	58 Dec 03 j 13:30	0° ♁			63 Oct 13 j 10:02	0° ♁	
	59 Jan 11 j 20:44	0° ♁			63 Nov 26 j 07:08	0° ♁	
	59 Feb 21 j 08:58	0° ♁			64 Jan 07 j 17:52	0° ♁	
asc. node	59 Mar 22 j 06:43	20° ♁ 39'14		desc. node	64 Jan 12 j 14:50	3° ♁ 30'07	
	59 Apr 04 j 15:53	0° ♁			64 Feb 18 j 01:35	0° ♁	
evening set	59 Apr 14 j 08:24	6° ♁ 41'04			64 Mar 29 j 20:03	0° ♁	
	59 May 18 j 21:09	0° ♁			64 May 10 j 05:33	0° ♁	
					64 Jun 24 j 04:30	0° ♁	
conjunction	59 Jun 05 j 21:01	11° ♁ 52'44	0°41'35	retrograde	64 Sep 06 j 18:32	28° ♁ 22'40	
minimum elong	59 Jun 05 j 19:35	11° ♁ 50'22	0°41'36	min. Earth dist.	64 Oct 06 j 01:46	22° ♁ 28'22	0.49065 AU

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

greatest brilliancy	64 Oct 13 j 11:25	19° Υ 46'29	-2.2m	conjunction	70 Jan 15 j 02:54	23° Ξ 55'59	-1°-4'-12
opposition	64 Oct 14 j 02:23	19° Υ 32'49	-1°-26'-59	minimum elong	70 Jan 15 j 01:48	23° Ξ 53'49	1°04'14
asc. node	64 Nov 11 j 04:13	12° Υ 34'30			70 Jan 22 j 19:19	0° \approx	
direct	64 Nov 16 j 21:08	12° Υ 21'31		max. Earth dist.	70 Jan 24 j 08:56	1° \approx 14'12	2.37192 AU
	65 Jan 17 j 12:32	0° X			70 Mar 02 j 02:10	0° X	
	65 Mar 15 j 09:07	0° Π		morning rise	70 Mar 26 j 04:24	18° X 28'59	
	65 May 05 j 14:01	0° Ξ			70 Apr 10 j 11:45	0° Υ	
	65 Jun 23 j 14:47	0° Ω			70 May 21 j 17:57	0° X	
	65 Aug 09 j 18:07	0° M		asc. node	70 Jul 04 j 00:38	29° X 41'14	
evening set	65 Aug 11 j 01:27	0° M 50'58			70 Jul 04 j 11:57	0° Π	
max. Earth dist.	65 Sep 01 j 11:59	14° M 57'38	2.59062 AU		70 Aug 20 j 14:04	0° Ξ	
	65 Sep 23 j 20:01	0° $\underline{\Delta}$			70 Oct 12 j 19:43	0° Ω	
				retrograde	70 Dec 27 j 07:54	23° Ω 49'01	
conjunction	65 Sep 27 j 01:16	2° $\underline{\Delta}$ 11'51	0°36'52	opposition	71 Feb 04 j 20:00	14° Ω 31'47	4°34'18
minimum elong	65 Sep 27 j 02:29	2° $\underline{\Delta}$ 13'57	0°36'50	greatest brilliancy	71 Feb 05 j 07:45	14° Ω 20'11	-1.3m
	65 Nov 05 j 20:06	0° M		min. Earth dist.	71 Feb 07 j 10:59	13° Ω 29'41	0.66671 AU
morning rise	65 Nov 14 j 16:44	6° M 21'19		direct	71 Mar 18 j 04:30	4° Ω 31'07	
desc. node	65 Nov 29 j 13:19	17° M 08'26			71 Jun 04 j 08:49	0° M	
	65 Dec 16 j 23:59	0° X		desc. node	71 Jul 22 j 10:44	28° M 13'58	
	66 Jan 25 j 18:50	0° Ξ			71 Jul 25 j 04:52	0° $\underline{\Delta}$	
	66 Mar 05 j 20:05	0° \approx			71 Sep 07 j 07:46	0° M	
	66 Apr 13 j 23:57	0° X			71 Oct 17 j 23:52	0° X	
	66 May 24 j 10:05	0° Υ			71 Nov 25 j 18:28	0° Ξ	
	66 Jul 06 j 22:52	0° X		greatest brilliancy	71 Nov 27 j 18:30	1° Ξ 34'14	1.2m
	66 Aug 28 j 05:25	0° Π			72 Jan 02 j 20:04	0° \approx	
asc. node	66 Sep 29 j 03:30	11° Π 46'13		evening set	72 Jan 20 j 15:28	13° \approx 59'39	
retrograde	66 Oct 18 j 23:54	14° Π 15'49			72 Feb 10 j 05:22	0° X	
min. Earth dist.	66 Nov 22 j 14:44	6° Π 22'03	0.60710 AU		72 Mar 20 j 19:17	0° Υ	
opposition	66 Nov 27 j 16:28	4° Π 21'11	2°25'06				
greatest brilliancy	66 Nov 27 j 00:25	4° Π 37'08	-1.6m	conjunction	72 Mar 26 j 06:13	4° Υ 02'11	0°-33'-41
	66 Dec 09 j 09:21	30° R X		minimum elong	72 Mar 26 j 08:31	4° Υ 06'26	0°33'39
direct	67 Jan 04 j 08:51	25° X 34'58			72 May 01 j 05:10	0° X	
	67 Feb 01 j 21:53	0° Π		max. Earth dist.	72 May 09 j 05:10	5° X 37'31	2.49186 AU
	67 Apr 11 j 13:35	0° Ξ		asc. node	72 May 21 j 00:35	13° X 49'36	
	67 Jun 03 j 10:58	0° Ω		morning rise	72 May 25 j 16:13	17° X 01'31	
	67 Jul 21 j 21:51	0° M			72 Jun 13 j 19:23	0° Π	
	67 Sep 05 j 05:41	0° $\underline{\Delta}$			72 Jul 29 j 17:17	0° Ξ	
evening set	67 Sep 21 j 17:12	11° $\underline{\Delta}$ 22'53			72 Sep 16 j 06:21	0° Ω	
max. Earth dist.	67 Oct 06 j 05:58	21° $\underline{\Delta}$ 37'56	2.47762 AU		72 Nov 08 j 09:12	0° M	
desc. node	67 Oct 17 j 13:01	29° $\underline{\Delta}$ 43'53		retrograde	73 Feb 03 j 09:14	29° M 13'00	
	67 Oct 17 j 21:56	0° M		opposition	73 Mar 13 j 00:22	20° M 52'41	3°26'30
				greatest brilliancy	73 Mar 14 j 02:36	20° M 27'51	-1.6m
conjunction	67 Nov 13 j 02:27	19° M 13'52	0°-16'-54	min. Earth dist.	73 Mar 19 j 09:32	18° M 27'50	0.59853 AU
minimum elong	67 Nov 13 j 01:29	19° M 12'05	0°16'55	direct	73 Apr 22 j 21:31	11° M 04'35	
	67 Nov 27 j 10:35	0° X		desc. node	73 Jun 08 j 09:09	22° M 28'33	
	68 Jan 05 j 11:36	0° Ξ			73 Jun 24 j 06:48	0° $\underline{\Delta}$	
morning rise	68 Jan 11 j 03:30	4° Ξ 24'40			73 Aug 13 j 09:30	0° M	
	68 Feb 12 j 19:47	0° \approx			73 Sep 24 j 20:35	0° X	
	68 Mar 22 j 07:42	0° X			73 Nov 03 j 10:05	0° Ξ	
	68 Apr 30 j 21:19	0° Υ			73 Dec 12 j 00:27	0° \approx	
	68 Jun 11 j 12:20	0° X			74 Jan 19 j 22:03	0° X	
	68 Jul 26 j 13:12	0° Π			74 Mar 01 j 01:07	0° Υ	
asc. node	68 Aug 16 j 02:23	12° Π 34'50		evening set	74 Mar 24 j 20:48	17° Υ 12'48	
	68 Sep 16 j 17:36	0° Ξ		asc. node	74 Apr 07 j 23:55	27° Υ 12'24	
retrograde	68 Nov 22 j 12:42	20° Ξ 24'39			74 Apr 11 j 23:40	0° X	
min. Earth dist.	68 Dec 31 j 10:36	11° Ξ 05'18	0.66933 AU				
opposition	69 Jan 01 j 16:57	10° Ξ 34'54	4°12'41	conjunction	74 May 19 j 12:38	25° X 42'42	0°24'25
greatest brilliancy	69 Jan 01 j 09:24	10° Ξ 42'27	-1.3m	minimum elong	74 May 19 j 11:30	25° X 40'48	0°24'24
direct	69 Feb 10 j 21:10	0° Ξ 57'15			74 May 25 j 22:15	0° Π	
	69 May 08 j 20:49	0° Ω		max. Earth dist.	74 Jun 11 j 19:23	11° Π 11'31	2.60339 AU
	69 Jun 30 j 07:58	0° M		morning rise	74 Jul 09 j 03:52	29° Π 00'32	
	69 Aug 15 j 20:11	0° $\underline{\Delta}$			74 Jul 10 j 16:45	0° Ξ	
desc. node	69 Sep 03 j 12:24	12° $\underline{\Delta}$ 48'11			74 Aug 26 j 22:42	0° Ω	
	69 Sep 27 j 17:23	0° M			74 Oct 14 j 13:43	0° M	
	69 Nov 07 j 01:16	0° X			74 Dec 04 j 13:23	0° $\underline{\Delta}$	
evening set	69 Nov 12 j 14:56	4° X 15'24			75 Feb 01 j 15:18	0° M	
	69 Dec 15 j 18:25	0° Ξ		retrograde	75 Mar 26 j 12:56	13° M 08'10	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

desc. node	75 Apr 26 j 08:42	7°♌29'11			80 May 13 j 08:41	0°♍	
opposition	75 Apr 29 j 13:33	6°♌25'15	0°-10'-26		80 Jun 30 j 16:48	0°♌	
greatest brilliancy	75 Jan 28 j 11:35	28°♌12'30	-3.1m	evening set	80 Jul 27 j 05:18	16°♌49'37	
min. Earth dist.	75 May 08 j 00:21	3°♌34'23	0.47657 AU		80 Aug 16 j 15:00	0°♍	
	75 May 20 j 18:59	30°♌♌		max. Earth dist.	80 Aug 22 j 00:05	3°♍30'29	2.62333 AU
direct	75 Jun 06 j 00:13	28°♌10'51					
	75 Jun 22 j 12:39	0°♌		conjunction	80 Sep 11 j 08:13	16°♍55'47	0°51'15
	75 Aug 25 j 19:17	0°♍		minimum elong	80 Sep 11 j 09:28	16°♍57'51	0°51'14
	75 Oct 08 j 15:38	0°♎			80 Sep 30 j 18:56	0°♌	
	75 Nov 18 j 09:46	0°♏		morning rise	80 Oct 27 j 22:28	18°♌39'58	
	75 Dec 28 j 20:39	0°♐			80 Nov 13 j 01:44	0°♌	
	76 Feb 08 j 06:54	0°♑		desc. node	80 Dec 16 j 06:29	23°♌52'06	
asc. node	76 Feb 23 j 21:57	11°♑02'05			80 Dec 24 j 15:27	0°♍	
	76 Mar 22 j 07:48	0°♒			81 Feb 02 j 21:17	0°♎	
	76 May 06 j 02:17	0°♓			81 Mar 14 j 09:45	0°♏	
evening set	76 May 11 j 13:21	3°♓35'17			81 Apr 23 j 01:58	0°♐	
	76 Jun 21 j 06:43	0°♍			81 Jun 03 j 07:52	0°♑	
					81 Jul 19 j 03:38	0°♒	
conjunction	76 Jun 29 j 14:19	5°♍20'09	1°00'22	retrograde	81 Oct 03 j 19:58	28°♒19'42	
minimum elong	76 Jun 29 j 13:12	5°♍18'21	1°00'22	asc. node	81 Oct 15 j 18:37	27°♒17'56	
max. Earth dist.	76 Jul 06 j 04:35	9°♍33'19	2.66418 AU	min. Earth dist.	81 Nov 05 j 11:09	21°♒08'13	0.56671 AU
	76 Aug 07 j 06:24	0°♌		opposition	81 Nov 11 j 21:43	18°♒37'35	1°13'14
morning rise	76 Aug 14 j 11:43	4°♌35'31		greatest brilliancy	81 Nov 11 j 10:40	18°♒48'22	-1.8m
	76 Sep 23 j 10:53	0°♍		direct	81 Dec 18 j 06:06	10°♒21'45	
	76 Nov 09 j 13:38	0°♌			82 Feb 23 j 10:25	0°♓	
	76 Dec 26 j 20:11	0°♌			82 Apr 21 j 09:40	0°♍	
	77 Feb 13 j 06:15	0°♍			82 Jun 11 j 06:47	0°♌	
desc. node	77 Mar 13 j 07:45	16°♍27'22			82 Jul 29 j 02:04	0°♍	
	77 Apr 07 j 15:12	0°♎		evening set	82 Sep 04 j 15:18	24°♍48'41	
retrograde	77 Jun 08 j 06:38	18°♎36'05			82 Sep 12 j 06:30	0°♌	
opposition	77 Jul 08 j 12:12	13°♎37'23	-6°-26'-15	max. Earth dist.	82 Sep 20 j 19:43	5°♌52'14	2.52652 AU
greatest brilliancy	77 Jul 08 j 21:37	13°♎31'07	-2.9m				
min. Earth dist.	77 Jul 09 j 21:08	13°♎15'26	0.37637 AU	conjunction	82 Oct 24 j 05:25	29°♌24'33	0°06'20
direct	77 Aug 07 j 20:41	8°♎30'46		minimum elong	82 Oct 24 j 05:42	29°♌25'04	0°06'20
	77 Oct 11 j 04:51	0°♏		behind sun begin	82 Oct 23 j 09:25	28°♌48'39	
	77 Nov 29 j 12:49	0°♐		behind sun end	82 Oct 25 j 01:59	0°♌01'31	
asc. node	78 Jan 10 j 21:05	27°♐43'32			82 Oct 25 j 01:08	0°♌	
	78 Jan 14 j 07:53	0°♑		desc. node	82 Nov 03 j 05:24	6°♌38'27	
	78 Mar 01 j 01:34	0°♒			82 Dec 04 j 19:03	0°♍	
	78 Apr 16 j 13:38	0°♓		morning rise	82 Dec 17 j 03:14	9°♍19'45	
	78 Jun 02 j 18:16	0°♍			83 Jan 13 j 01:59	0°♎	
evening set	78 Jun 20 j 17:54	11°♍23'10			83 Feb 20 j 15:25	0°♏	
	78 Jul 20 j 01:58	0°♌			83 Mar 31 j 07:33	0°♐	
max. Earth dist.	78 Jul 29 j 11:30	5°♌59'17	2.67063 AU		83 May 10 j 01:30	0°♑	
					83 Jun 21 j 01:49	0°♒	
conjunction	78 Aug 05 j 21:00	10°♌42'49	1°09'17		83 Aug 06 j 09:12	0°♓	
minimum elong	78 Aug 05 j 21:14	10°♌43'11	1°09'17	asc. node	83 Sep 02 j 17:42	15°♓26'31	
	78 Sep 04 j 20:07	0°♍			83 Oct 05 j 03:42	0°♍	
morning rise	78 Sep 19 j 11:03	9°♍30'47		retrograde	83 Nov 10 j 02:47	7°♍10'44	
	78 Oct 20 j 12:54	0°♌			83 Dec 13 j 07:19	30°♌♌	
	78 Dec 03 j 23:56	0°♌		min. Earth dist.	83 Dec 17 j 11:21	28°♓21'19	0.65245 AU
	79 Jan 16 j 07:27	0°♍		opposition	83 Dec 20 j 05:55	27°♓14'33	3°42'34
desc. node	79 Jan 29 j 06:55	9°♍07'13		greatest brilliancy	83 Dec 19 j 16:45	27°♓27'46	-1.3m
	79 Feb 27 j 18:37	0°♎		direct	84 Jan 28 j 14:07	17°♓53'10	
	79 Apr 11 j 02:44	0°♏			84 Mar 19 j 13:13	0°♍	
	79 May 25 j 07:56	0°♐			84 May 19 j 00:58	0°♌	
	79 Jul 21 j 05:14	0°♑			84 Jul 08 j 08:52	0°♍	
retrograde	79 Aug 18 j 08:50	5°♑16'36			84 Aug 23 j 06:45	0°♌	
min. Earth dist.	79 Sep 14 j 19:11	0°♑12'12	0.43956 AU	desc. node	84 Sep 20 j 03:57	19°♌20'54	
	79 Sep 15 j 10:05	30°♑♑			84 Oct 05 j 00:46	0°♌	
greatest brilliancy	79 Sep 21 j 09:39	27°♑59'21	-2.5m	evening set	84 Oct 21 j 02:09	11°♌45'08	
opposition	79 Sep 22 j 18:26	27°♑31'43	-3°-39'-1	max. Earth dist.	84 Nov 12 j 20:17	28°♌48'32	2.40053 AU
direct	79 Oct 24 j 15:30	21°♑13'28			84 Nov 14 j 09:55	0°♍	
asc. node	79 Nov 28 j 20:40	28°♑09'14					
	79 Dec 03 j 21:01	0°♑		conjunction	84 Dec 18 j 18:09	26°♍30'06	0°-51'-43
	80 Feb 02 j 11:35	0°♒		minimum elong	84 Dec 18 j 15:36	26°♍25'05	0°51'42
	80 Mar 24 j 21:08	0°♓			84 Dec 23 j 05:32	0°♎	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	85 Jan 30 j 08:38	0°♊		retrograde	90 Mar 04 j 11:22	24°♊34'38	
morning rise	85 Feb 24 j 11:14	19°♊42'43		opposition	90 Apr 09 j 03:13	17°♊07'25	1°38'17
	85 Mar 09 j 16:39	0°♋		greatest brilliancy	90 Apr 09 j 22:15	16°♊50'20	-1.9m
	85 Apr 18 j 02:24	0°♌		min. Earth dist.	90 Apr 17 j 05:25	14°♊13'22	0.52849 AU
	85 May 29 j 09:33	0°♍		desc. node	90 May 13 j 00:04	8°♊13'32	
	85 Jul 12 j 09:46	0°♎		direct	90 May 18 j 10:11	8°♊01'21	
asc. node	85 Jul 20 j 17:45	5°♎25'25			90 Jul 23 j 06:04	0°♌	
	85 Aug 29 j 13:27	0°♏			90 Sep 08 j 06:45	0°♍	
	85 Oct 27 j 08:33	0°♐			90 Oct 19 j 11:05	0°♎	
retrograde	85 Dec 13 j 14:44	11°♐02'28			90 Nov 27 j 23:32	0°♏	
opposition	86 Jan 22 j 12:04	1°♐29'57	4°35'24		91 Jan 06 j 14:18	0°♋	
greatest brilliancy	86 Jan 22 j 15:56	1°♐26'07	-1.2m		91 Feb 16 j 08:23	0°♌	
min. Earth dist.	86 Jan 23 j 14:27	1°♐03'44	0.67553 AU	asc. node	91 Mar 12 j 14:18	17°♌17'00	
	86 Jan 26 j 06:48	30°♑♏			91 Mar 30 j 20:05	0°♍	
direct	86 Mar 04 j 13:20	21°♑34'59		evening set	91 Apr 25 j 00:48	17°♌11'25	
	86 Apr 14 j 14:32	0°♒			91 May 14 j 04:36	0°♎	
	86 Jun 15 j 08:36	0°♓					
	86 Aug 02 j 19:02	0°♈		conjunction	91 Jun 15 j 03:11	20°♈56'38	0°49'39
desc. node	86 Aug 08 j 02:50	3°♈32'05		minimum elong	91 Jun 15 j 01:47	20°♈54'21	0°49'39
	86 Sep 15 j 06:09	0°♉		max. Earth dist.	91 Jun 27 j 22:04	29°♈12'41	2.64691 AU
	86 Oct 25 j 17:25	0°♊			91 Jun 29 j 03:27	0°♏	
	86 Dec 03 j 10:18	0°♋		morning rise	91 Aug 01 j 09:41	21°♏16'35	
evening set	86 Dec 23 j 14:58	15°♋55'11			91 Aug 15 j 03:32	0°♒	
	87 Jan 10 j 10:39	0°♌			91 Oct 01 j 17:37	0°♓	
	87 Feb 17 j 18:03	0°♍			91 Nov 18 j 21:08	0°♈	
					92 Jan 07 j 11:18	0°♉	
conjunction	87 Feb 28 j 23:23	8°♍38'53	0°-54'-22		92 Mar 02 j 06:11	0°♊	
minimum elong	87 Mar 01 j 02:14	8°♍44'21	0°54'22	desc. node	92 Mar 30 j 00:28	11°♊59'45	
	87 Mar 29 j 05:09	0°♎		retrograde	92 May 07 j 07:04	19°♊44'34	
max. Earth dist.	87 Apr 20 j 11:46	16°♎22'18	2.43873 AU	opposition	92 Jun 07 j 10:49	14°♊20'47	-4°-10'-30
morning rise	87 May 05 j 08:42	27°♎03'24		greatest brilliancy	92 Jun 08 j 15:00	14°♊00'30	-2.7m
	87 May 09 j 12:14	0°♏		min. Earth dist.	92 Jun 13 j 12:00	12°♊36'39	0.40190 AU
asc. node	87 Jun 07 j 16:25	20°♏16'33		direct	92 Jul 10 j 11:09	8°♊09'20	
	87 Jun 22 j 01:42	0°♐			92 Sep 12 j 04:28	0°♋	
	87 Aug 07 j 05:44	0°♑			92 Oct 29 j 09:12	0°♌	
	87 Sep 25 j 20:38	0°♒			92 Dec 11 j 18:53	0°♍	
	87 Nov 22 j 16:42	0°♓			93 Jan 24 j 01:38	0°♎	
retrograde	88 Jan 19 j 07:29	15°♓04'02		asc. node	93 Jan 27 j 12:15	2°♎21'40	
opposition	88 Feb 26 j 20:05	6°♓17'53	4°05'28		93 Mar 09 j 09:20	0°♏	
greatest brilliancy	88 Feb 27 j 18:31	5°♓56'12	-1.4m		93 Apr 24 j 00:47	0°♐	
min. Earth dist.	88 Mar 02 j 19:07	4°♓22'54	0.63279 AU	evening set	93 Jun 05 j 17:59	27°♐27'25	
	88 Mar 15 j 07:02	30°♔♒			93 Jun 09 j 17:37	0°♑	
direct	88 Apr 08 j 03:35	26°♒18'51		max. Earth dist.	93 Jul 20 j 10:31	25°♑54'51	2.67467 AU
	88 May 03 j 12:59	0°♓					
desc. node	88 Jun 25 j 01:30	22°♓44'59		conjunction	93 Jul 22 j 15:21	27°♑18'55	1°09'00
	88 Jul 07 j 18:02	0°♈		minimum elong	93 Jul 22 j 15:01	27°♑18'23	1°09'01
	88 Aug 23 j 05:21	0°♉			93 Jul 26 j 20:32	0°♒	
	88 Oct 03 j 16:29	0°♊		morning rise	93 Sep 05 j 08:26	25°♒54'19	
	88 Nov 11 j 19:22	0°♋			93 Sep 11 j 17:01	0°♓	
	88 Dec 20 j 02:31	0°♌			93 Oct 27 j 20:01	0°♈	
	89 Jan 27 j 17:25	0°♍			93 Dec 12 j 02:30	0°♉	
evening set	89 Mar 01 j 22:28	25°♍05'35			94 Jan 25 j 16:51	0°♊	
	89 Mar 08 j 13:32	0°♎		desc. node	94 Feb 14 j 23:44	13°♊43'27	
	89 Apr 19 j 05:32	0°♏			94 Mar 11 j 02:29	0°♋	
asc. node	89 Apr 24 j 15:15	3°♏47'12			94 Apr 25 j 19:27	0°♌	
					94 Jun 20 j 02:21	0°♍	
conjunction	89 Apr 30 j 09:40	7°♏48'07	0°03'35	retrograde	94 Jul 25 j 07:31	7°♏46'00	
minimum elong	89 Apr 30 j 09:26	7°♏47'43	0°03'35	min. Earth dist.	94 Aug 20 j 22:50	3°♏16'06	0.39627 AU
behind sun begin	89 Apr 29 j 10:25	7°♏07'45		greatest brilliancy	94 Aug 25 j 14:14	1°♏53'44	-2.7m
behind sun end	89 May 01 j 08:28	8°♏27'37		opposition	94 Aug 27 j 00:53	1°♏27'53	-5°-51'-38
max. Earth dist.	89 May 31 j 07:18	28°♏53'04	2.56535 AU		94 Sep 01 j 01:46	30°♑♒	
	89 Jun 01 j 23:13	0°♐		direct	94 Sep 26 j 06:44	26°♑04'35	
morning rise	89 Jun 23 j 03:26	14°♐02'36			94 Oct 21 j 16:11	0°♋	
	89 Jul 17 j 16:56	0°♑		asc. node	94 Dec 15 j 11:26	24°♋34'37	
	89 Sep 03 j 06:28	0°♒			94 Dec 25 j 04:38	0°♌	
	89 Oct 23 j 00:08	0°♓			95 Feb 13 j 16:57	0°♍	
	89 Dec 16 j 14:31	0°♈			95 Apr 03 j 10:22	0°♎	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	95 May 21 j 18:36	0°♄		100 Feb 07 j 23:00	0°♊
	95 Jul 08 j 14:43	0°♌		100 Mar 17 j 08:51	0°♈
evening set	95 Jul 13 j 17:17	3°♌14'04		100 Apr 25 j 19:54	0°♍
max. Earth dist.	95 Aug 13 j 06:40	22°♌46'48	2.64813 AU	100 Jun 06 j 06:09	0°♎
	95 Aug 24 j 10:01	0°♍		100 Jul 20 j 18:13	0°♏
			asc. node	100 Aug 06 j 08:49	10°♏28'21
conjunction	95 Aug 28 j 11:52	2°♍39'22	1°01'28	100 Sep 08 j 20:21	0°♐
minimum elong	95 Aug 28 j 12:51	2°♍40'58	1°01'27	100 Nov 30 j 05:22	28°♐17'07
	95 Oct 08 j 17:38	0°♎	retrograde		
morning rise	95 Oct 12 j 19:49	2°♎45'49			
	95 Nov 21 j 09:23	0°♏			
desc. node	96 Jan 02 j 22:03	0°♐17'55			
	96 Jan 02 j 12:09	0°♑			
	96 Feb 12 j 09:28	0°♒			
	96 Mar 23 j 15:03	0°♓			
	96 May 03 j 04:52	0°♈			
	96 Jun 15 j 03:44	0°♉			
	96 Aug 06 j 20:00	0°♊			
retrograde	96 Sep 17 j 03:55	10°♊16'09			
min. Earth dist.	96 Oct 17 j 15:15	3°♊53'21	0.51880 AU		
opposition	96 Oct 25 j 05:30	1°♊02'07	0°-21'-29		
greatest brilliancy	96 Oct 25 j 06:04	1°♊01'35	-2.0m		
	96 Oct 28 j 00:11	30°♋			
asc. node	96 Nov 01 j 11:20	28°♋24'42			
direct	96 Nov 29 j 00:09	23°♋25'15			
	97 Jan 02 j 20:25	0°♌			
	97 Mar 08 j 10:07	0°♍			
	97 Apr 30 j 02:57	0°♎			
	97 Jun 18 j 17:20	0°♏			
	97 Aug 05 j 02:10	0°♐			
evening set	97 Aug 19 j 18:39	9°♐35'52			
max. Earth dist.	97 Sep 08 j 02:15	22°♐27'42	2.56965 AU		
	97 Sep 19 j 05:22	0°♑			
conjunction	97 Oct 06 j 11:45	11°♑53'21	0°26'44		
minimum elong	97 Oct 06 j 12:47	11°♑55'09	0°26'42		
	97 Nov 01 j 03:42	0°♒			
desc. node	97 Nov 19 j 21:18	13°♒32'45			
morning rise	97 Nov 25 j 16:02	17°♒46'52			
	97 Dec 12 j 04:08	0°♓			
	98 Jan 20 j 18:27	0°♈			
	98 Feb 28 j 14:53	0°♉			
	98 Apr 08 j 13:34	0°♊			
	98 May 18 j 15:43	0°♋			
	98 Jun 30 j 09:56	0°♌			
	98 Aug 18 j 08:42	0°♍			
asc. node	98 Sep 19 j 10:15	15°♍06'08			
retrograde	98 Oct 27 j 06:20	23°♍11'05			
min. Earth dist.	98 Dec 01 j 21:48	14°♍55'51	0.62580 AU		
greatest brilliancy	98 Dec 05 j 11:34	13°♍30'09	-1.5m		
opposition	98 Dec 06 j 03:46	13°♍13'57	2°58'16		
direct	99 Jan 13 j 11:17	4°♎13'43			
	99 Apr 04 j 03:32	0°♏			
	99 May 28 j 22:25	0°♐			
	99 Jul 16 j 23:27	0°♑			
	99 Aug 31 j 12:32	0°♒			
evening set	99 Oct 02 j 03:14	22°♒01'33			
desc. node	99 Oct 07 j 20:23	26°♒06'46			
	99 Oct 13 j 05:54	0°♓			
max. Earth dist.	99 Oct 17 j 06:24	2°♓54'48	2.44971 AU		
	99 Nov 22 j 17:47	0°♈			
conjunction	99 Nov 25 j 11:13	2°♈04'04	0°-30'-26		
minimum elong	99 Nov 25 j 09:27	2°♈00'43	0°30'26		
	99 Dec 31 j 16:58	0°♉			
greatest brilliancy	100 Jan 20 j 22:32	15°♉50'22	1.2m		
morning rise	100 Jan 26 j 17:40	20°♉23'39			

conjunction	102 Jan 31 j 09:06	10° \approx 32'02	-1°-4'-56		106 Oct 09 j 07:20	0° \mathfrak{M}	
minimum elong	102 Jan 31 j 09:47	10° \approx 33'24	1°04'58		106 Nov 27 j 23:45	0° \mathfrak{L}	
	102 Feb 25 j 06:59	0° \mathfrak{H}			107 Jan 20 j 22:22	0° \mathfrak{M}	
max. Earth dist.	102 Mar 15 j 19:41	14° \mathfrak{H} 15'22	2.38791 AU	retrograde	107 Apr 09 j 14:23	25° \mathfrak{M} 27'53	
	102 Apr 05 j 16:17	0° \mathfrak{Y}		desc. node	107 Apr 16 j 16:07	25° \mathfrak{M} 09'02	
morning rise	102 Apr 10 j 15:55	3° \mathfrak{Y} 42'35		opposition	107 May 12 j 16:38	19° \mathfrak{M} 12'35	-1°-29'-31
	102 May 16 j 21:31	0° \mathfrak{B}		greatest brilliancy	107 May 13 j 08:58	18° \mathfrak{M} 59'24	-2.4m
asc. node	102 Jun 24 j 08:41	26° \mathfrak{B} 33'22		min. Earth dist.	107 May 20 j 20:06	16° \mathfrak{M} 35'53	0.44799 AU
	102 Jun 29 j 12:07	0° \mathfrak{II}		direct	107 Jun 17 j 17:26	11° \mathfrak{M} 37'20	
	102 Aug 15 j 02:53	0° \mathfrak{S}			107 Aug 14 j 07:54	0° \mathfrak{J}	
	102 Oct 05 j 13:10	0° \mathfrak{Q}			107 Sep 30 j 21:13	0° \mathfrak{Z}	
	102 Dec 18 j 06:38	0° \mathfrak{M}			107 Nov 11 j 21:20	0° \approx	
retrograde	103 Jan 04 j 11:00	1° \mathfrak{M} 41'37			107 Dec 23 j 00:58	0° \mathfrak{H}	
	103 Jan 20 j 17:32	30° \mathfrak{R} \mathfrak{Q}			108 Feb 02 j 22:34	0° \mathfrak{Y}	
opposition	103 Feb 12 j 15:48	22° \mathfrak{Q} 34'20	4°27'43	asc. node	108 Feb 14 j 04:49	7° \mathfrak{Y} 53'55	
greatest brilliancy	103 Feb 13 j 07:46	22° \mathfrak{Q} 18'41	-1.3m		108 Mar 17 j 07:31	0° \mathfrak{B}	
min. Earth dist.	103 Feb 16 j 03:06	21° \mathfrak{Q} 12'41	0.65740 AU		108 May 01 j 07:38	0° \mathfrak{II}	
direct	103 Mar 26 j 01:33	12° \mathfrak{Q} 32'23		evening set	108 May 21 j 00:16	12° \mathfrak{II} 50'14	
	103 May 26 j 17:39	0° \mathfrak{M}			108 Jun 16 j 15:21	0° \mathfrak{S}	
desc. node	103 Jul 12 j 18:03	25° \mathfrak{M} 58'11					
	103 Jul 19 j 05:40	0° \mathfrak{L}		conjunction	108 Jul 08 j 03:32	13° \mathfrak{S} 45'16	1°04'43
	103 Sep 02 j 00:22	0° \mathfrak{M}		minimum elong	108 Jul 08 j 02:40	13° \mathfrak{S} 43'54	1°04'44
	103 Oct 12 j 22:18	0° \mathfrak{J}		max. Earth dist.	108 Jul 11 j 13:32	15° \mathfrak{S} 56'00	2.67024 AU
	103 Nov 20 j 19:18	0° \mathfrak{Z}			108 Aug 02 j 15:28	0° \mathfrak{Q}	
	103 Dec 28 j 22:17	0° \approx		morning rise	108 Aug 22 j 11:27	12° \mathfrak{Q} 37'51	
evening set	104 Feb 05 j 05:52	29° \approx 54'05			108 Sep 18 j 16:30	0° \mathfrak{M}	
	104 Feb 05 j 08:57	0° \mathfrak{H}			108 Nov 04 j 09:20	0° \mathfrak{L}	
	104 Mar 16 j 00:15	0° \mathfrak{Y}			108 Dec 20 j 19:02	0° \mathfrak{M}	
					109 Feb 05 j 09:51	0° \mathfrak{J}	
conjunction	104 Apr 08 j 19:47	17° \mathfrak{Y} 24'38	0°-20'00	desc. node	109 Mar 03 j 15:29	16° \mathfrak{J} 32'21	
minimum elong	104 Apr 08 j 21:08	17° \mathfrak{Y} 27'04	0°19'59		109 Mar 25 j 17:34	0° \mathfrak{Z}	
	104 Apr 26 j 11:20	0° \mathfrak{B}			109 May 23 j 17:06	0° \approx	
asc. node	104 May 11 j 07:14	10° \mathfrak{B} 22'28		retrograde	109 Jun 26 j 08:39	6° \approx 42'29	
max. Earth dist.	104 May 18 j 00:36	15° \mathfrak{B} 01'12	2.51998 AU	min. Earth dist.	109 Jul 25 j 03:43	2° \approx 00'35	0.37509 AU
morning rise	104 Jun 05 j 14:04	27° \mathfrak{B} 39'20		opposition	109 Jul 26 j 21:40	1° \approx 32'38	-6°-53'-1
	104 Jun 09 j 01:43	0° \mathfrak{II}		greatest brilliancy	109 Jul 26 j 11:31	1° \approx 39'24	-2.9m
	104 Jul 24 j 20:35	0° \mathfrak{S}			109 Aug 01 j 19:45	30° \mathfrak{R} \mathfrak{Z}	
	104 Sep 10 j 22:19	0° \mathfrak{Q}		direct	109 Aug 25 j 10:57	26° \mathfrak{Z} 37'09	
	104 Nov 01 j 10:17	0° \mathfrak{M}			109 Sep 17 j 18:08	0° \approx	
	105 Jan 03 j 14:32	0° \mathfrak{L}			109 Nov 19 j 23:39	0° \mathfrak{H}	
retrograde	105 Feb 13 j 06:47	8° \mathfrak{L} 13'27		asc. node	110 Jan 01 j 04:22	26° \mathfrak{H} 01'16	
opposition	105 Mar 22 j 06:52	0° \mathfrak{L} 09'53	2°54'18		110 Jan 07 j 10:46	0° \mathfrak{Y}	
	105 Mar 22 j 17:29	30° \mathfrak{R} \mathfrak{M}			110 Feb 23 j 08:16	0° \mathfrak{B}	
greatest brilliancy	105 Mar 23 j 08:52	29° \mathfrak{M} 45'37	-1.7m		110 Apr 11 j 11:06	0° \mathfrak{II}	
min. Earth dist.	105 Mar 29 j 08:51	27° \mathfrak{M} 31'27	0.57591 AU		110 May 28 j 23:45	0° \mathfrak{S}	
direct	105 May 01 j 17:59	20° \mathfrak{M} 32'10		evening set	110 Jun 29 j 04:21	19° \mathfrak{S} 40'53	
desc. node	105 May 29 j 17:26	25° \mathfrak{M} 09'50			110 Jul 15 j 11:04	0° \mathfrak{Q}	
	105 Jun 12 j 03:29	0° \mathfrak{L}		max. Earth dist.	110 Aug 03 j 21:00	12° \mathfrak{Q} 22'34	2.66490 AU
	105 Aug 06 j 10:26	0° \mathfrak{M}					
	105 Sep 18 j 22:46	0° \mathfrak{J}		conjunction	110 Aug 14 j 01:39	18° \mathfrak{Q} 54'57	1°07'34
	105 Oct 28 j 22:20	0° \mathfrak{Z}		minimum elong	110 Aug 14 j 02:11	18° \mathfrak{Q} 55'49	1°07'34
	105 Dec 06 j 18:17	0° \approx			110 Aug 31 j 05:29	0° \mathfrak{M}	
	106 Jan 14 j 20:12	0° \mathfrak{H}		morning rise	110 Sep 27 j 18:31	18° \mathfrak{M} 01'44	
	106 Feb 24 j 02:57	0° \mathfrak{Y}			110 Oct 15 j 18:52	0° \mathfrak{L}	
asc. node	106 Mar 29 j 05:15	23° \mathfrak{Y} 42'57			110 Nov 28 j 22:34	0° \mathfrak{M}	
evening set	106 Apr 05 j 19:39	29° \mathfrak{Y} 02'23			111 Jan 10 j 18:34	0° \mathfrak{J}	
	106 Apr 07 j 04:43	0° \mathfrak{B}		desc. node	111 Jan 19 j 14:32	6° \mathfrak{J} 17'15	
	106 May 21 j 05:42	0° \mathfrak{II}			111 Feb 21 j 13:33	0° \mathfrak{Z}	
					111 Apr 03 j 21:56	0° \approx	
conjunction	106 May 29 j 15:18	5° \mathfrak{II} 34'58	0°34'52		111 May 16 j 04:54	0° \mathfrak{H}	
minimum elong	106 May 29 j 13:55	5° \mathfrak{II} 32'41	0°34'51		111 Jul 02 j 16:41	0° \mathfrak{Y}	
max. Earth dist.	106 Jun 17 j 22:47	18° \mathfrak{II} 16'25	2.62130 AU	retrograde	111 Aug 30 j 08:21	19° \mathfrak{Y} 17'13	
	106 Jul 06 j 00:44	0° \mathfrak{S}		min. Earth dist.	111 Sep 27 j 16:54	13° \mathfrak{Y} 46'23	0.46741 AU
morning rise	106 Jul 17 j 20:39	7° \mathfrak{S} 36'07		opposition	111 Oct 05 j 21:22	10° \mathfrak{Y} 53'14	-2°-21'-18
	106 Aug 22 j 03:24	0° \mathfrak{Q}		greatest brilliancy	111 Oct 04 j 21:56	11° \mathfrak{Y} 13'57	-2.3m

direct	111 Nov 07 j 20:24	4°♄04'44			116 Nov 09 j 16:36	0°♂	
asc. node	111 Nov 19 j 02:59	4°♄52'41		max. Earth dist.	116 Dec 09 j 14:14	23°♂03'30	2.37870 AU
	112 Jan 24 j 19:19	0°♂			116 Dec 18 j 11:17	0°♂	
	112 Mar 18 j 19:19	0°♄					
	112 May 08 j 04:38	0°♂		conjunction	117 Jan 02 j 20:35	12°♂06'01	-1°00'-20
	112 Jun 25 j 22:04	0°♄		minimum elong	117 Jan 02 j 18:31	12°♂01'55	1°00'20
evening set	112 Aug 04 j 16:16	25°♄15'33			117 Jan 25 j 12:59	0°≈	
	112 Aug 11 j 23:51	0°♄			117 Mar 04 j 19:46	0°♂	
max. Earth dist.	112 Aug 28 j 01:49	10°♄31'56	2.60616 AU	morning rise	117 Mar 13 j 11:38	6°♂41'41	
					117 Apr 13 j 04:24	0°♄	
conjunction	112 Sep 20 j 05:07	25°♄58'42	0°43'24		117 May 24 j 09:26	0°♂	
minimum elong	112 Sep 20 j 06:24	26°♄00'51	0°43'23		117 Jul 07 j 04:06	0°♄	
	112 Sep 26 j 03:38	0°♄		asc. node	117 Jul 10 j 23:26	2°♄30'39	
morning rise	112 Nov 06 j 19:48	28°♄56'26			117 Aug 23 j 13:14	0°♂	
	112 Nov 08 j 07:36	0°♄			117 Oct 17 j 08:22	0°♄	
desc. node	112 Dec 06 j 13:03	20°♄20'26		retrograde	117 Dec 21 j 10:53	18°♄48'52	
	112 Dec 19 j 16:37	0°♂		opposition	118 Jan 30 j 03:16	9°♄24'28	4°36'04
	113 Jan 28 j 16:46	0°♂		greatest brilliancy	118 Jan 30 j 11:33	9°♄16'15	-1.2m
	113 Mar 08 j 22:45	0°≈		min. Earth dist.	118 Feb 01 j 02:03	8°♄38'06	0.67197 AU
	113 Apr 17 j 07:11	0°♂			118 Mar 02 j 21:56	30°♄	
	113 May 27 j 23:19	0°♄		direct	118 Mar 12 j 08:42	29°♂25'42	
	113 Jul 11 j 03:54	0°♂			118 Mar 22 j 03:21	0°♄	
	113 Sep 05 j 11:51	0°♄			118 Jun 08 j 13:10	0°♄	
asc. node	113 Oct 06 j 01:57	7°♄47'05			118 Jul 28 j 07:43	0°♄	
retrograde	113 Oct 12 j 16:20	8°♄04'45		desc. node	118 Jul 29 j 10:22	0°♄43'22	
min. Earth dist.	113 Nov 15 j 10:13	0°♄28'49	0.58996 AU		118 Sep 10 j 04:54	0°♄	
	113 Nov 16 j 15:38	30°♄			118 Oct 20 j 19:56	0°♂	
greatest brilliancy	113 Nov 20 j 11:34	28°♂29'02	-1.6m		118 Nov 28 j 14:18	0°♂	
opposition	113 Nov 21 j 02:30	28°♂14'15	1°57'25		119 Jan 05 j 15:09	0°≈	
direct	113 Dec 28 j 04:45	19°♂40'45		evening set	119 Jan 08 j 09:16	2°≈10'21	
	114 Feb 12 j 02:02	0°♄		greatest brilliancy	119 Jan 19 j 03:53	10°≈39'14	1.2m
	114 Apr 15 j 02:26	0°♂			119 Feb 12 j 22:56	0°♂	
	114 Jun 06 j 02:03	0°♄					
	114 Jul 24 j 07:02	0°♄		conjunction	119 Mar 16 j 04:31	23°♂49'54	0°-43'-19
	114 Sep 07 j 14:37	0°♄		minimum elong	119 Mar 16 j 07:20	23°♂55'11	0°43'18
evening set	114 Sep 14 j 04:37	4°♄30'37			119 Mar 24 j 10:29	0°♄	
max. Earth dist.	114 Sep 29 j 05:15	14°♄57'11	2.49989 AU	max. Earth dist.	119 May 02 j 13:09	28°♄27'06	2.46826 AU
	114 Oct 20 j 08:58	0°♄			119 May 04 j 17:33	0°♂	
desc. node	114 Oct 24 j 12:35	2°♄59'57		morning rise	119 May 17 j 20:15	9°♂12'37	
				asc. node	119 May 28 j 22:43	16°♂53'40	
conjunction	114 Nov 04 j 05:18	10°♄47'46	0°-6'-50		119 Jun 17 j 05:51	0°♄	
minimum elong	114 Nov 04 j 04:56	10°♄47'04	0°06'51		119 Aug 02 j 04:25	0°♂	
behind sun begin	114 Nov 03 j 08:09	10°♄09'00			119 Sep 20 j 01:27	0°♄	
behind sun end	114 Nov 05 j 01:42	11°♄25'10			119 Nov 13 j 14:49	0°♄	
	114 Nov 30 j 00:50	0°♂		retrograde	120 Jan 28 j 08:03	23°♄29'29	
morning rise	114 Dec 30 j 19:49	23°♂30'45		opposition	120 Mar 06 j 09:00	14°♄57'00	3°44'51
	115 Jan 08 j 04:58	0°♂		greatest brilliancy	120 Mar 07 j 09:56	14°♄33'08	-1.5m
	115 Feb 15 j 15:27	0°≈		min. Earth dist.	120 Mar 12 j 03:12	12°♄44'49	0.61504 AU
	115 Mar 26 j 04:48	0°♂		direct	120 Apr 16 j 11:27	5°♄02'37	
	115 May 04 j 19:14	0°♄		desc. node	120 Jun 15 j 08:53	22°♄25'26	
	115 Jun 15 j 12:05	0°♂			120 Jun 29 j 20:47	0°♄	
	115 Jul 30 j 21:26	0°♄			120 Aug 17 j 04:39	0°♄	
asc. node	115 Aug 24 j 01:19	14°♄24'45			120 Sep 28 j 05:17	0°♂	
	115 Sep 23 j 00:25	0°♂			120 Nov 06 j 14:17	0°♂	
retrograde	115 Nov 17 j 21:04	15°♂17'27			120 Dec 15 j 01:01	0°≈	
min. Earth dist.	115 Dec 26 j 02:24	6°♂10'51	0.66303 AU		121 Jan 22 j 18:51	0°♂	
opposition	115 Dec 28 j 00:47	5°♂24'18	4°01'43		121 Mar 03 j 17:42	0°♄	
greatest brilliancy	115 Dec 27 j 14:28	5°♂34'39	-1.3m	evening set	121 Mar 15 j 05:57	8°♄24'50	
	116 Jan 11 j 13:50	30°♄		asc. node	121 Apr 14 j 22:20	0°♂18'24	
direct	116 Feb 05 j 20:09	25°♄53'23			121 Apr 14 j 11:51	0°♂	
	116 Mar 04 j 14:12	0°♂					
	116 May 12 j 13:45	0°♄		conjunction	121 May 11 j 13:04	18°♂41'39	0°16'00
	116 Jul 03 j 02:44	0°♄		minimum elong	121 May 11 j 12:15	18°♂40'14	0°15'59
	116 Aug 18 j 10:07	0°♄			121 May 28 j 06:54	0°♄	
desc. node	116 Sep 10 j 11:57	15°♄53'33		max. Earth dist.	121 Jun 07 j 02:01	6°♄31'58	2.58726 AU
	116 Sep 30 j 07:11	0°♄		morning rise	121 Jul 02 j 11:07	23°♄11'32	
evening set	116 Nov 02 j 11:01	24°♄31'13			121 Jul 12 j 23:39	0°♂	

	121 Aug 29 j 07:35	0°♏		direct	126 Oct 12 j 18:19	11°♐15'41	
	121 Oct 17 j 08:04	0°♐		asc. node	126 Dec 05 j 19:13	26°♐01'16	
	121 Dec 08 j 12:46	0°♑			126 Dec 14 j 04:23	0°♑	
	122 Feb 13 j 02:04	0°♒			127 Feb 06 j 20:06	0°♒	
retrograde	122 Mar 16 j 12:45	5°♒12'47			127 Mar 28 j 21:27	0°♓	
	122 Apr 14 j 20:25	30°♒♑			127 May 16 j 19:52	0°♓	
opposition	122 Apr 20 j 07:51	28°♑08'49	0°40'21		127 Jul 03 j 22:40	0°♓	
greatest brilliancy	122 Apr 20 j 16:49	28°♑01'01	-2.1m	evening set	127 Jul 22 j 00:05	11°♓26'29	
min. Earth dist.	122 Apr 28 j 17:08	25°♑13'46	0.50019 AU	max. Earth dist.	127 Aug 18 j 21:30	29°♓22'58	2.63547 AU
desc. node	122 May 03 j 08:13	23°♑43'31			127 Aug 19 j 20:18	0°♐	
direct	122 May 28 j 16:00	19°♑28'18					
	122 Jul 10 j 05:30	0°♐		conjunction	127 Sep 05 j 21:48	11°♐10'24	0°56'01
	122 Aug 31 j 14:14	0°♑		minimum elong	127 Sep 05 j 22:58	11°♐12'19	0°56'01
	122 Oct 13 j 00:56	0°♒			127 Oct 04 j 02:37	0°♑	
	122 Nov 22 j 03:40	0°♓		morning rise	127 Oct 21 j 20:24	12°♑05'34	
	123 Jan 01 j 03:49	0°♐			127 Nov 16 j 14:12	0°♒	
	123 Feb 11 j 05:17	0°♑		desc. node	127 Dec 24 j 06:06	26°♒57'58	
asc. node	123 Mar 02 j 20:34	13°♑56'54			127 Dec 28 j 10:02	0°♑	
	123 Mar 25 j 22:38	0°♒			128 Feb 06 j 22:45	0°♒	
evening set	123 May 05 j 05:11	27°♒10'39			128 Mar 17 j 17:56	0°♓	
	123 May 09 j 11:27	0°♓			128 Apr 26 j 17:42	0°♐	
					128 Jun 07 j 12:08	0°♑	
conjunction	123 Jun 24 j 02:27	29°♓44'02	0°56'22		128 Jul 25 j 01:12	0°♒	
minimum elong	123 Jun 24 j 01:10	29°♓41'58	0°56'22	retrograde	128 Sep 26 j 22:33	21°♒19'05	
	123 Jun 24 j 12:22	0°♓		asc. node	128 Oct 22 j 17:17	16°♒36'03	
max. Earth dist.	123 Jul 03 j 10:39	5°♓44'07	2.65751 AU	min. Earth dist.	128 Oct 28 j 14:56	14°♒28'06	0.54618 AU
morning rise	123 Aug 09 j 12:55	29°♓23'59		opposition	128 Nov 04 j 14:17	11°♒47'02	0°36'17
	123 Aug 10 j 11:36	0°♓		greatest brilliancy	128 Nov 04 j 08:03	11°♒53'03	-1.9m
	123 Sep 26 j 19:51	0°♐		direct	128 Dec 10 j 06:15	3°♒47'18	
	123 Nov 13 j 08:18	0°♑			129 Feb 28 j 13:31	0°♓	
	123 Dec 31 j 11:35	0°♒			129 Apr 24 j 10:19	0°♓	
	124 Feb 19 j 22:01	0°♑			129 Jun 13 j 17:55	0°♓	
desc. node	124 Mar 20 j 07:11	15°♑45'51			129 Jul 31 j 09:36	0°♐	
	124 Apr 22 j 15:39	0°♒		evening set	129 Aug 28 j 16:48	18°♐35'27	
retrograde	124 May 25 j 01:33	5°♒52'22			129 Sep 14 j 14:38	0°♑	
opposition	124 Jun 24 j 11:13	0°♒48'08	-5°-36'-37	max. Earth dist.	129 Sep 15 j 05:19	0°♑25'01	2.54669 AU
greatest brilliancy	124 Jun 25 j 09:11	0°♒33'06	-2.8m				
	124 Jun 27 j 09:32	30°♒♑		conjunction	129 Oct 16 j 08:19	22°♑02'53	0°15'24
min. Earth dist.	124 Jun 28 j 04:41	29°♑46'58	0.38451 AU	minimum elong	129 Oct 16 j 08:59	22°♑04'05	0°15'23
direct	124 Jul 25 j 21:37	25°♑17'48		behind sun begin	129 Oct 16 j 02:11	21°♑52'03	
	124 Aug 21 j 23:14	0°♒		behind sun end	129 Oct 16 j 15:47	22°♑16'07	
	124 Oct 19 j 17:38	0°♓			129 Oct 27 j 12:07	0°♒	
	124 Dec 04 j 14:26	0°♐		desc. node	129 Nov 10 j 05:10	9°♒54'42	
asc. node	125 Jan 17 j 19:24	29°♐50'04		morning rise	129 Dec 07 j 10:07	0°♑00'40	
	125 Jan 18 j 01:18	0°♑			129 Dec 07 j 09:46	0°♑	
	125 Mar 04 j 01:05	0°♒			130 Jan 15 j 20:31	0°♒	
	125 Apr 19 j 02:31	0°♓			130 Feb 23 j 12:57	0°♓	
	125 Jun 05 j 01:03	0°♓			130 Apr 03 j 07:12	0°♐	
evening set	125 Jun 14 j 10:04	5°♓57'18			130 May 13 j 03:14	0°♑	
	125 Jul 22 j 06:23	0°♓			130 Jun 24 j 07:57	0°♒	
max. Earth dist.	125 Jul 25 j 16:30	2°♓10'46	2.67343 AU		130 Aug 10 j 09:09	0°♓	
				asc. node	130 Sep 09 j 15:59	16°♓11'40	
conjunction	125 Jul 30 j 19:59	5°♓27'31	1°09'39		130 Oct 18 j 07:39	0°♓	
minimum elong	125 Jul 30 j 19:58	5°♓27'31	1°09'39	retrograde	130 Nov 04 j 07:51	1°♓47'27	
	125 Sep 07 j 01:47	0°♐			130 Nov 20 j 09:27	30°♒♓	
morning rise	125 Sep 13 j 09:49	4°♐06'06		min. Earth dist.	130 Dec 10 j 22:02	23°♓12'36	0.64177 AU
	125 Oct 22 j 23:10	0°♑		opposition	130 Dec 14 j 08:27	21°♓49'56	3°26'03
	125 Dec 06 j 18:45	0°♒		greatest brilliancy	130 Dec 13 j 17:26	22°♓05'01	-1.4m
	126 Jan 19 j 14:52	0°♑		direct	131 Jan 22 j 05:43	12°♓37'23	
desc. node	126 Feb 05 j 06:11	11°♑31'16			131 Mar 26 j 10:51	0°♓	
	126 Mar 03 j 19:46	0°♒			131 May 23 j 03:20	0°♓	
	126 Apr 16 j 06:37	0°♓			131 Jul 11 j 22:43	0°♐	
	126 Jun 02 j 00:39	0°♐			131 Aug 26 j 18:05	0°♑	
retrograde	126 Aug 08 j 09:49	24°♐15'57		desc. node	131 Sep 28 j 03:36	22°♑32'19	
min. Earth dist.	126 Sep 04 j 06:47	19°♐30'34	0.41851 AU		131 Oct 08 j 13:10	0°♒	
greatest brilliancy	126 Sep 10 j 04:27	17°♐37'46	-2.6m	evening set	131 Oct 13 j 03:46	3°♒20'27	
opposition	126 Sep 11 j 16:59	17°♐08'31	-4°-39'-20	max. Earth dist.	131 Oct 31 j 01:14	16°♒30'03	2.42184 AU

	131 Nov 18 j 00:29	0°♊		morning rise	136 Jun 15 j 19:44	7°♊39'51	
					136 Jul 20 j 00:54	0°♊	
conjunction	131 Dec 08 j 18:24	15°♊53'10 0°-43'-11			136 Sep 05 j 18:05	0°♊	
minimum elong	131 Dec 08 j 16:00	15°♊48'33 0°43'11			136 Oct 26 j 02:02	0°♊	
	131 Dec 26 j 22:19	0°♊			136 Dec 22 j 02:24	0°♊	
	132 Feb 03 j 02:45	0°♊		retrograde	137 Feb 23 j 21:39	17°♊46'15	
morning rise	132 Feb 12 j 05:58	7°♊11'05		opposition	137 Apr 01 j 04:25	10°♊01'47 2°13'46	
	132 Mar 12 j 11:02	0°♊		greatest brilliancy	137 Apr 02 j 03:34	9°♊40'34 -1.8m	
	132 Apr 20 j 20:21	0°♊		min. Earth dist.	137 Apr 08 j 20:23	7°♊13'26 0.55050 AU	
	132 Jun 01 j 03:02	0°♊		direct	137 May 11 j 00:59	0°♊39'23	
	132 Jul 15 j 05:37	0°♊		desc. node	137 May 19 j 23:46	1°♊11'02	
asc. node	132 Jul 27 j 16:19	8°♊01'20			137 Jul 29 j 08:02	0°♊	
	132 Sep 01 j 22:24	0°♊			137 Sep 12 j 13:12	0°♊	
	132 Nov 04 j 05:30	0°♊			137 Oct 23 j 03:51	0°♊	
retrograde	132 Dec 07 j 22:11	6°♊05'43			137 Dec 01 j 08:13	0°♊	
	133 Jan 07 j 18:31	30°♊			138 Jan 09 j 16:06	0°♊	
opposition	133 Jan 16 j 21:50	26°♊27'24 4°32'16			138 Feb 19 j 03:51	0°♊	
greatest brilliancy	133 Jan 16 j 22:16	26°♊26'59 -1.2m		asc. node	138 Mar 19 j 13:04	20°♊18'34	
min. Earth dist.	133 Jan 17 j 07:58	26°♊17'17 0.67624 AU			138 Apr 02 j 09:33	0°♊	
direct	133 Feb 26 j 17:34	16°♊36'20		evening set	138 Apr 16 j 23:36	10°♊03'02	
	133 Apr 21 j 14:01	0°♊			138 May 16 j 13:23	0°♊	
	133 Jun 18 j 17:23	0°♊					
	133 Aug 05 j 14:52	0°♊		conjunction	138 Jun 08 j 04:55	14°♊56'35 0°43'55	
desc. node	133 Aug 15 j 02:18	6°♊20'39		minimum elong	138 Jun 08 j 03:28	14°♊54'13 0°43'54	
	133 Sep 17 j 23:23	0°♊		max. Earth dist.	138 Jun 23 j 19:12	25°♊05'37 2.63645 AU	
	133 Oct 28 j 10:46	0°♊			138 Jul 01 j 09:21	0°♊	
	133 Dec 06 j 04:20	0°♊		morning rise	138 Jul 26 j 06:16	15°♊56'31	
evening set	133 Dec 11 j 14:21	4°♊15'33			138 Aug 17 j 09:51	0°♊	
	134 Jan 13 j 04:41	0°♊			138 Oct 04 j 05:05	0°♊	
					138 Nov 21 j 22:21	0°♊	
conjunction	134 Feb 16 j 15:35	27°♊02'18 -1°00'-36			139 Jan 11 j 23:45	0°♊	
minimum elong	134 Feb 16 j 17:51	27°♊06'42 1°00'36			139 Mar 14 j 03:24	0°♊	
	134 Feb 20 j 11:09	0°♊		desc. node	139 Apr 06 j 23:45	7°♊07'13	
	134 Mar 31 j 20:31	0°♊		retrograde	139 Apr 25 j 04:35	9°♊02'34	
max. Earth dist.	134 Apr 08 j 13:46	5°♊44'09 2.41484 AU		opposition	139 May 27 j 04:44	3°♊16'49 -2°-58'-58	
morning rise	134 Apr 25 j 02:03	17°♊49'44		greatest brilliancy	139 May 28 j 06:59	2°♊56'54 -2.6m	
	134 May 12 j 01:20	0°♊		min. Earth dist.	139 Jun 03 j 12:20	1°♊04'23 0.42079 AU	
asc. node	134 Jun 14 j 15:14	23°♊18'20			139 Jun 07 j 06:34	30°♊	
	134 Jun 24 j 13:35	0°♊		direct	139 Jun 30 j 14:43	26°♊27'21	
	134 Aug 09 j 19:46	0°♊			139 Jul 23 j 20:27	0°♊	
	134 Sep 29 j 00:01	0°♊			139 Sep 21 j 10:10	0°♊	
	134 Nov 29 j 05:21	0°♊			139 Nov 04 j 14:59	0°♊	
retrograde	135 Jan 12 j 20:48	9°♊45'07			139 Dec 16 j 19:39	0°♊	
opposition	135 Feb 20 j 16:50	0°♊49'00 4°16'18			140 Jan 28 j 09:03	0°♊	
greatest brilliancy	135 Feb 21 j 12:33	0°♊29'48 -1.3m		asc. node	140 Feb 04 j 11:28	4°♊55'45	
	135 Feb 22 j 19:06	30°♊			140 Mar 12 j 04:43	0°♊	
min. Earth dist.	135 Feb 24 j 23:48	29°♊08'43 0.64506 AU			140 Apr 26 j 12:05	0°♊	
direct	135 Apr 03 j 01:39	20°♊47'42		evening set	140 May 30 j 02:41	21°♊44'25	
	135 May 15 j 07:36	0°♊			140 Jun 11 j 23:56	0°♊	
desc. node	135 Jul 03 j 01:25	24°♊13'17					
	135 Jul 12 j 18:24	0°♊		conjunction	140 Jul 16 j 11:47	21°♊59'58 1°07'41	
	135 Aug 27 j 12:13	0°♊		minimum elong	140 Jul 16 j 11:13	21°♊59'04 1°07'41	
	135 Oct 07 j 18:14	0°♊		max. Earth dist.	140 Jul 16 j 19:29	22°♊12'13 2.67376 AU	
	135 Nov 15 j 18:57	0°♊			140 Jul 29 j 01:20	0°♊	
	135 Dec 23 j 23:59	0°♊		morning rise	140 Aug 30 j 09:52	20°♊39'04	
	136 Jan 31 j 12:09	0°♊			140 Sep 13 j 23:49	0°♊	
evening set	136 Feb 20 j 01:24	14°♊55'18			140 Oct 30 j 08:52	0°♊	
	136 Mar 11 j 05:00	0°♊			140 Dec 15 j 02:49	0°♊	
					141 Jan 29 j 11:48	0°♊	
conjunction	136 Apr 21 j 09:24	29°♊45'58 0°-6'-18		desc. node	141 Feb 21 j 23:30	15°♊29'24	
minimum elong	136 Apr 21 j 09:47	29°♊46'38 0°06'19			141 Mar 16 j 05:34	0°♊	
behind sun begin	136 Apr 20 j 11:12	29°♊06'49			141 May 03 j 23:13	0°♊	
behind sun end	136 Apr 22 j 08:21	0°♊26'26		retrograde	141 Jul 13 j 07:30	24°♊52'10	
	136 Apr 21 j 17:21	0°♊		min. Earth dist.	141 Aug 09 j 10:37	20°♊24'36 0.38320 AU	
asc. node	136 May 01 j 13:33	6°♊53'58		opposition	141 Aug 13 j 20:32	19°♊10'30 -6°-32'-59	
max. Earth dist.	136 May 25 j 22:59	23°♊40'09 2.54588 AU		greatest brilliancy	141 Aug 12 j 18:01	19°♊29'08 -2.8m	
	136 Jun 04 j 08:11	0°♊		direct	141 Sep 12 j 14:21	14°♊05'41	

	141 Nov 06 j 21:07	0° H		conjunction	146 Nov 15 j 21:24	22° M 54'00	0°-20'-18
asc. node	141 Dec 22 j 10:05	25° H 03'01		minimum elong	146 Nov 15 j 20:16	22° M 51'52	0°20'19
	141 Dec 30 j 16:23	0° Y			146 Nov 25 j 08:03	0° Z	
	142 Feb 17 j 07:03	0° B			147 Jan 03 j 09:56	0° Z	
	142 Apr 06 j 05:14	0° II		morning rise	147 Jan 14 j 12:38	8° Z 39'54	
	142 May 24 j 03:56	0° S			147 Feb 10 j 17:57	0° \approx	
evening set	142 Jul 07 j 12:44	27° S 54'09		greatest brilliancy	147 Mar 20 j 05:57	29° \approx 16'02	1.2m
	142 Jul 10 j 20:12	0° Ω			147 Mar 21 j 04:41	0° H	
max. Earth dist.	142 Aug 09 j 06:30	18° Ω 46'25	2.65671 AU		147 Apr 29 j 16:03	0° Y	
					147 Jun 10 j 03:12	0° B	
conjunction	142 Aug 22 j 07:02	27° Ω 10'31	1°04'30		147 Jul 24 j 20:39	0° II	
minimum elong	142 Aug 22 j 07:50	27° Ω 11'49	1°04'30	asc. node	147 Aug 14 j 07:38	12° II 40'26	
	142 Aug 26 j 15:34	0° M			147 Sep 14 j 01:48	0° S	
morning rise	142 Oct 06 j 06:21	26° M 45'40		retrograde	147 Nov 25 j 14:18	23° S 15'47	
	142 Oct 11 j 02:20	0° $\underline{\text{A}}$		opposition	148 Jan 04 j 17:14	13° S 26'51	4°16'34
	142 Nov 24 j 00:02	0° M		greatest brilliancy	148 Jan 04 j 10:24	13° S 33'42	-1.3m
	143 Jan 05 j 10:37	0° Z		min. Earth dist.	148 Jan 03 j 14:58	13° S 53'12	0.67050 AU
desc. node	143 Jan 09 j 21:53	3° Z 12'46		direct	148 Feb 13 j 22:03	3° S 47'42	
	143 Feb 15 j 17:18	0° Z			148 May 05 j 09:28	0° Ω	
	143 Mar 28 j 09:17	0° \approx			148 Jun 27 j 15:01	0° M	
	143 May 08 j 12:58	0° H			148 Aug 13 j 10:27	0° $\underline{\text{A}}$	
	143 Jun 21 j 18:14	0° Y		desc. node	148 Aug 31 j 18:18	12° $\underline{\text{A}}$ 30'11	
	143 Aug 24 j 04:54	0° B			148 Sep 25 j 11:49	0° M	
retrograde	143 Sep 10 j 09:18	2° B 01'38			148 Nov 04 j 22:16	0° Z	
	143 Sep 26 j 23:27	30° R Y		evening set	148 Nov 15 j 18:57	8° Z 18'20	
min. Earth dist.	143 Oct 09 j 20:50	26° Y 01'49	0.49588 AU		148 Dec 13 j 16:47	0° Z	
opposition	143 Oct 17 j 19:32	23° Y 06'59	-1°-9'-37				
greatest brilliancy	143 Oct 17 j 07:31	23° Y 18'02	-2.1m	conjunction	149 Jan 18 j 17:37	28° Z 24'30	-1°-4'-50
asc. node	143 Nov 09 j 09:51	16° Y 43'02		minimum elong	149 Jan 18 j 16:55	28° Z 23'07	1°04'50
direct	143 Nov 20 j 19:43	15° Y 50'32			149 Jan 20 j 18:00	0° \approx	
	144 Jan 13 j 18:48	0° B		max. Earth dist.	149 Feb 06 j 05:48	12° \approx 59'42	2.37329 AU
	144 Mar 12 j 06:41	0° II			149 Feb 28 j 00:10	0° H	
	144 May 02 j 20:59	0° S		morning rise	149 Mar 29 j 17:55	22° H 47'27	
	144 Jun 21 j 02:21	0° Ω			149 Apr 08 j 08:09	0° Y	
	144 Aug 07 j 08:56	0° M			149 May 19 j 11:48	0° B	
evening set	144 Aug 13 j 05:53	3° M 49'13		asc. node	149 Jul 01 j 07:10	29° B 28'31	
max. Earth dist.	144 Sep 03 j 08:28	17° M 44'28	2.58691 AU		149 Jul 02 j 02:04	0° II	
	144 Sep 21 j 13:21	0° $\underline{\text{A}}$			149 Aug 17 j 21:32	0° S	
					149 Oct 09 j 07:55	0° Ω	
conjunction	144 Sep 29 j 08:21	5° $\underline{\text{A}}$ 19'16	0°34'15	retrograde	149 Dec 29 j 10:28	26° Ω 37'57	
minimum elong	144 Sep 29 j 09:33	5° $\underline{\text{A}}$ 21'19	0°34'14	opposition	150 Feb 06 j 20:26	17° Ω 22'34	4°32'34
	144 Nov 03 j 15:12	0° M		greatest brilliancy	150 Feb 07 j 09:02	17° Ω 10'08	-1.3m
morning rise	144 Nov 17 j 05:41	9° M 46'11		min. Earth dist.	150 Feb 09 j 15:18	16° Ω 16'38	0.66513 AU
desc. node	144 Nov 26 j 20:55	16° M 46'13		direct	150 Mar 20 j 04:18	7° Ω 21'21	
	144 Dec 14 j 20:03	0° Z			150 May 31 j 19:29	0° M	
	145 Jan 23 j 15:04	0° Z		desc. node	150 Jul 19 j 17:24	28° M 12'07	
	145 Mar 03 j 15:38	0° \approx			150 Jul 22 j 13:22	0° $\underline{\text{A}}$	
	145 Apr 11 j 17:44	0° H			150 Sep 04 j 23:46	0° M	
	145 May 22 j 00:09	0° Y			150 Oct 15 j 19:29	0° Z	
	145 Jul 04 j 04:10	0° B			150 Nov 23 j 15:48	0° Z	
	145 Aug 23 j 23:31	0° II			150 Dec 31 j 17:49	0° \approx	
asc. node	145 Sep 26 j 09:08	13° II 33'28		evening set	151 Jan 24 j 06:54	18° \approx 29'05	
retrograde	145 Oct 21 j 04:07	17° II 19'37			151 Feb 08 j 02:34	0° H	
min. Earth dist.	145 Nov 24 j 23:27	9° II 21'11	0.61082 AU		151 Mar 19 j 15:13	0° Y	
opposition	145 Nov 29 j 20:48	7° II 24'17	2°35'04				
greatest brilliancy	145 Nov 29 j 04:20	7° II 40'43	-1.5m	conjunction	151 Mar 30 j 12:33	8° Y 02'46	0°-30'-16
	145 Dec 23 j 01:04	30° R B		minimum elong	151 Mar 30 j 14:39	8° Y 06'36	0°30'16
direct	146 Jan 06 j 15:13	28° B 35'21			151 Apr 29 j 23:14	0° B	
	146 Jan 22 j 04:25	0° II		max. Earth dist.	151 May 12 j 11:57	8° B 48'14	2.49750 AU
	146 Apr 08 j 05:08	0° S		asc. node	151 May 19 j 05:52	13° B 29'16	
	146 May 31 j 17:09	0° Ω		morning rise	151 May 29 j 08:54	20° B 26'54	
	146 Jul 19 j 10:24	0° M			151 Jun 12 j 11:07	0° II	
	146 Sep 02 j 22:20	0° $\underline{\text{A}}$			151 Jul 28 j 05:55	0° S	
evening set	146 Sep 24 j 04:11	14° $\underline{\text{A}}$ 40'25			151 Sep 14 j 13:32	0° Ω	
max. Earth dist.	146 Oct 08 j 20:51	25° $\underline{\text{A}}$ 04'29	2.47254 AU		151 Nov 06 j 01:02	0° M	
desc. node	146 Oct 14 j 20:09	29° $\underline{\text{A}}$ 21'29			152 Jan 17 j 21:16	0° $\underline{\text{A}}$	
	146 Oct 15 j 17:31	0° M		retrograde	152 Feb 06 j 18:50	2° $\underline{\text{A}}$ 12'16	

	152 Feb 25 j 09:57	30° \mathbb{R} \mathbb{M}		evening set	157 Jun 22 j 22:44	14° \mathbb{S} 19'34	
opposition	152 Mar 15 j 06:23	23° \mathbb{M} 54'55	3°17'58		157 Jul 17 j 15:53	0° \mathbb{Q}	
greatest brilliancy	152 Mar 16 j 08:25	23° \mathbb{M} 30'16	-1.6m	max. Earth dist.	157 Jul 31 j 00:38	8° \mathbb{Q} 30'54	2.66975 AU
min. Earth dist.	152 Mar 21 j 18:13	21° \mathbb{M} 27'35	0.59454 AU				
direct	152 Apr 25 j 01:05	14° \mathbb{M} 08'04		conjunction	157 Aug 08 j 00:15	13° \mathbb{Q} 37'07	1°08'54
desc. node	152 Jun 05 j 17:14	23° \mathbb{M} 32'54		minimum elong	157 Aug 08 j 00:34	13° \mathbb{Q} 37'36	1°08'55
	152 Jun 20 j 04:53	0° \mathbb{A}			157 Sep 02 j 10:58	0° \mathbb{M}	
	152 Aug 10 j 16:40	0° \mathbb{M}		morning rise	157 Sep 21 j 13:57	12° \mathbb{M} 26'57	
	152 Sep 22 j 12:23	0° \mathbb{X}			157 Oct 18 j 04:25	0° \mathbb{A}	
	152 Nov 01 j 05:14	0° \mathbb{S}			157 Dec 01 j 15:27	0° \mathbb{M}	
	152 Dec 09 j 20:37	0° \mathbb{A}			158 Jan 13 j 21:51	0° \mathbb{X}	
	153 Jan 17 j 17:52	0° \mathbb{H}		desc. node	158 Jan 26 j 14:07	8° \mathbb{X} 55'33	
	153 Feb 26 j 19:50	0° \mathbb{Y}			158 Feb 25 j 06:23	0° \mathbb{S}	
evening set	153 Mar 27 j 19:54	20° \mathbb{Y} 55'41			158 Apr 08 j 08:47	0° \mathbb{A}	
asc. node	153 Apr 05 j 03:49	26° \mathbb{Y} 48'47			158 May 21 j 23:10	0° \mathbb{H}	
	153 Apr 09 j 16:51	0° \mathbb{B}			158 Jul 13 j 16:25	0° \mathbb{Y}	
				retrograde	158 Aug 21 j 07:43	9° \mathbb{Y} 22'51	
conjunction	153 May 22 j 02:23	29° \mathbb{B} 00'39	0°27'23	min. Earth dist.	158 Sep 17 j 20:04	4° \mathbb{Y} 14'30	0.44459 AU
minimum elong	153 May 22 j 01:09	28° \mathbb{B} 58'36	0°27'22	opposition	158 Sep 25 j 22:16	1° \mathbb{Y} 30'17	-3°-19'-53
	153 May 23 j 13:51	0° \mathbb{H}		greatest brilliancy	158 Sep 24 j 15:29	1° \mathbb{Y} 56'26	-2.4m
max. Earth dist.	153 Jun 13 j 11:11	13° \mathbb{H} 50'49	2.60718 AU		158 Sep 30 j 11:20	30° \mathbb{R} \mathbb{H}	
	153 Jul 08 j 06:45	0° \mathbb{S}		direct	158 Oct 28 j 00:48	25° \mathbb{H} 06'18	
morning rise	153 Jul 11 j 09:49	2° \mathbb{S} 00'58		asc. node	158 Nov 26 j 01:34	29° \mathbb{H} 59'02	
	153 Aug 24 j 10:44	0° \mathbb{Q}			158 Nov 26 j 02:49	0° \mathbb{Y}	
	153 Oct 11 j 21:57	0° \mathbb{M}			159 Jan 30 j 01:55	0° \mathbb{B}	
	153 Dec 01 j 11:33	0° \mathbb{A}			159 Mar 23 j 01:27	0° \mathbb{H}	
	154 Jan 27 j 15:57	0° \mathbb{M}			159 May 11 j 18:10	0° \mathbb{S}	
retrograde	154 Mar 29 j 14:10	16° \mathbb{M} 42'44			159 Jun 29 j 05:16	0° \mathbb{Q}	
desc. node	154 Apr 23 j 15:41	12° \mathbb{M} 52'41		evening set	159 Jul 30 j 09:13	19° \mathbb{Q} 45'52	
opposition	154 May 02 j 12:07	10° \mathbb{M} 04'30	0°-29'-10		159 Aug 15 j 05:46	0° \mathbb{M}	
greatest brilliancy	154 May 02 j 18:04	9° \mathbb{M} 59'31	-2.3m	max. Earth dist.	159 Aug 24 j 18:42	6° \mathbb{M} 13'17	2.62025 AU
min. Earth dist.	154 May 10 j 22:21	7° \mathbb{M} 15'45	0.47129 AU				
direct	154 Jun 08 j 15:58	1° \mathbb{M} 56'59		conjunction	159 Sep 14 j 13:47	19° \mathbb{M} 58'24	0°49'11
	154 Aug 22 j 07:57	0° \mathbb{X}		minimum elong	159 Sep 14 j 15:02	20° \mathbb{M} 00'30	0°49'11
	154 Oct 05 j 23:21	0° \mathbb{S}			159 Sep 29 j 11:37	0° \mathbb{A}	
	154 Nov 15 j 23:33	0° \mathbb{A}		morning rise	159 Oct 31 j 08:00	21° \mathbb{A} 55'06	
	154 Dec 26 j 12:32	0° \mathbb{H}			159 Nov 11 j 19:52	0° \mathbb{M}	
	155 Feb 05 j 23:06	0° \mathbb{Y}		desc. node	159 Dec 14 j 12:49	23° \mathbb{M} 29'17	
asc. node	155 Feb 21 j 03:18	10° \mathbb{Y} 43'20			159 Dec 23 j 10:24	0° \mathbb{X}	
	155 Mar 20 j 23:24	0° \mathbb{B}			160 Feb 01 j 16:22	0° \mathbb{S}	
	155 May 04 j 17:02	0° \mathbb{H}			160 Mar 12 j 04:01	0° \mathbb{A}	
evening set	155 May 14 j 23:29	6° \mathbb{H} 44'30			160 Apr 20 j 17:53	0° \mathbb{H}	
	155 Jun 19 j 20:49	0° \mathbb{S}			160 May 31 j 18:11	0° \mathbb{Y}	
					160 Jul 15 j 21:23	0° \mathbb{B}	
conjunction	155 Jul 02 j 19:47	8° \mathbb{S} 18'33	1°01'44		160 Sep 20 j 18:42	0° \mathbb{H}	
minimum elong	155 Jul 02 j 18:44	8° \mathbb{S} 16'51	1°01'43	retrograde	160 Oct 06 j 03:11	1° \mathbb{H} 33'34	
max. Earth dist.	155 Jul 08 j 21:27	12° \mathbb{S} 11'22	2.66567 AU	asc. node	160 Oct 13 j 00:19	1° \mathbb{H} 13'04	
	155 Aug 05 j 20:09	0° \mathbb{Q}			160 Oct 20 j 18:34	30° \mathbb{R} \mathbb{B}	
morning rise	155 Aug 17 j 13:46	7° \mathbb{Q} 27'50		min. Earth dist.	160 Nov 07 j 23:21	24° \mathbb{B} 16'43	0.57124 AU
	155 Sep 22 j 00:03	0° \mathbb{M}		opposition	160 Nov 14 j 05:47	21° \mathbb{B} 49'23	1°26'03
	155 Nov 08 j 01:01	0° \mathbb{A}		greatest brilliancy	160 Nov 13 j 17:15	22° \mathbb{B} 01'42	-1.7m
	155 Dec 25 j 02:56	0° \mathbb{M}		direct	160 Dec 20 j 16:46	13° \mathbb{B} 30'04	
	156 Feb 11 j 01:32	0° \mathbb{X}			161 Feb 19 j 03:28	0° \mathbb{H}	
desc. node	156 Mar 10 j 14:36	17° \mathbb{X} 04'51			161 Apr 18 j 10:08	0° \mathbb{S}	
	156 Apr 02 j 18:37	0° \mathbb{S}			161 Jun 08 j 15:57	0° \mathbb{Q}	
retrograde	156 Jun 12 j 07:12	23° \mathbb{S} 19'23			161 Jul 26 j 15:53	0° \mathbb{M}	
opposition	156 Jul 12 j 13:04	18° \mathbb{S} 20'17	-6°-36'-22	evening set	161 Sep 06 j 23:10	27° \mathbb{M} 57'06	
greatest brilliancy	156 Jul 12 j 18:51	18° \mathbb{S} 16'27	-2.9m		161 Sep 09 j 23:28	0° \mathbb{A}	
min. Earth dist.	156 Jul 13 j 07:08	18° \mathbb{S} 08'19	0.37538 AU	max. Earth dist.	161 Sep 22 j 23:53	8° \mathbb{A} 56'23	2.52138 AU
direct	156 Aug 11 j 14:51	13° \mathbb{S} 17'34			161 Oct 22 j 20:18	0° \mathbb{M}	
	156 Oct 06 j 04:53	0° \mathbb{A}					
	156 Nov 26 j 08:01	0° \mathbb{H}		conjunction	161 Oct 26 j 19:50	2° \mathbb{M} 51'58	0°02'59
asc. node	157 Jan 08 j 02:51	27° \mathbb{H} 43'28		minimum elong	161 Oct 26 j 20:00	2° \mathbb{M} 52'17	0°02'58
	157 Jan 11 j 14:12	0° \mathbb{Y}		behind sun begin	161 Oct 25 j 22:23	2° \mathbb{M} 13'19	
	157 Feb 26 j 12:03	0° \mathbb{B}		behind sun end	161 Oct 27 j 17:37	3° \mathbb{M} 31'17	
	157 Apr 14 j 01:48	0° \mathbb{H}		desc. node	161 Oct 31 j 11:49	6° \mathbb{M} 14'38	
	157 May 31 j 07:19	0° \mathbb{S}			161 Dec 02 j 15:35	0° \mathbb{X}	

morning rise	161 Dec 20 j 05:59	13°♂19'15		greatest brilliancy	167 Mar 01 j 22:33	8°♂53'19	-1.4m
	162 Jan 10 j 23:06	0°♂		min. Earth dist.	167 Mar 06 j 02:02	7°♂17'15	0.62972 AU
	162 Feb 18 j 12:21	0°♂			167 Mar 31 j 18:51	30°♂♂	
	162 Mar 29 j 03:23	0°♂		direct	167 Apr 11 j 05:13	29°♂16'53	
	162 May 07 j 19:02	0°♂			167 Apr 22 j 00:38	0°♂	
	162 Jun 18 j 14:46	0°♂		desc. node	167 Jun 23 j 08:38	23°♂10'33	
	162 Aug 03 j 11:10	0°♂			167 Jul 05 j 14:24	0°♂	
asc. node	162 Aug 30 j 23:56	15°♂52'11			167 Aug 21 j 17:14	0°♂	
	162 Sep 29 j 14:13	0°♂			167 Oct 02 j 10:15	0°♂	
retrograde	162 Nov 12 j 04:09	10°♂03'44			167 Nov 10 j 15:47	0°♂	
min. Earth dist.	162 Dec 19 j 16:01	1°♂10'52	0.65474 AU		167 Dec 18 j 23:50	0°♂	
opposition	162 Dec 22 j 06:37	0°♂07'57	3°48'34		168 Jan 26 j 14:25	0°♂	
greatest brilliancy	162 Dec 21 j 17:50	0°♂20'48	-1.3m	evening set	168 Mar 05 j 01:26	29°♂01'02	
	162 Dec 22 j 14:32	30°♂♂			168 Mar 06 j 09:20	0°♂	
direct	163 Jan 30 j 16:15	20°♂44'49			168 Apr 16 j 23:32	0°♂	
	163 Mar 15 j 07:25	0°♂		asc. node	168 Apr 21 j 20:49	3°♂25'52	
	163 May 17 j 00:16	0°♂					
	163 Jul 06 j 19:28	0°♂		conjunction	168 May 03 j 03:11	11°♂16'12	0°06'55
	163 Aug 21 j 22:58	0°♂		minimum elong	168 May 03 j 02:47	11°♂15'29	0°06'55
desc. node	163 Sep 18 j 11:22	19°♂01'05		behind sun begin	168 May 02 j 05:30	10°♂38'43	
	163 Oct 03 j 20:28	0°♂		behind sun end	168 May 04 j 00:04	11°♂52'14	
evening set	163 Oct 24 j 21:14	15°♂24'20			168 May 30 j 15:08	0°♂	
	163 Nov 13 j 07:37	0°♂		max. Earth dist.	168 Jun 02 j 04:34	1°♂43'00	2.56958 AU
max. Earth dist.	163 Nov 17 j 17:58	3°♂22'20	2.39562 AU	morning rise	168 Jun 25 j 12:22	17°♂09'56	
	163 Dec 22 j 04:02	0°♂			168 Jul 15 j 06:32	0°♂	
					168 Aug 31 j 16:56	0°♂	
conjunction	163 Dec 23 j 02:35	0°♂44'06	0°-54'-5		168 Oct 20 j 04:13	0°♂	
minimum elong	163 Dec 23 j 00:03	0°♂39'08	0°54'06		168 Dec 12 j 21:49	0°♂	
	164 Jan 29 j 06:54	0°♂		retrograde	169 Mar 07 j 05:04	27°♂51'14	
morning rise	164 Feb 29 j 08:30	24°♂23'07		opposition	169 Apr 11 j 17:07	20°♂27'53	1°24'04
	164 Mar 07 j 13:45	0°♂		greatest brilliancy	169 Apr 12 j 09:52	20°♂12'54	-2.0m
	164 Apr 15 j 21:34	0°♂		min. Earth dist.	169 Apr 19 j 20:22	17°♂33'40	0.52335 AU
	164 May 27 j 01:51	0°♂		desc. node	169 May 10 j 07:42	12°♂11'52	
	164 Jul 09 j 21:32	0°♂		direct	169 May 20 j 19:05	11°♂26'01	
asc. node	164 Jul 17 j 22:13	5°♂15'23			169 Jul 19 j 06:48	0°♂	
	164 Aug 26 j 15:44	0°♂			169 Sep 05 j 12:52	0°♂	
	164 Oct 22 j 15:26	0°♂			169 Oct 17 j 01:09	0°♂	
retrograde	164 Dec 15 j 16:24	13°♂51'07			169 Nov 25 j 16:33	0°♂	
opposition	165 Jan 24 j 11:57	4°♂20'07	4°35'46		170 Jan 04 j 08:07	0°♂	
greatest brilliancy	165 Jan 24 j 16:42	4°♂15'23	-1.2m		170 Feb 14 j 01:52	0°♂	
min. Earth dist.	165 Jan 25 j 18:15	3°♂49'58	0.67520 AU	asc. node	170 Mar 09 j 19:39	16°♂56'31	
	165 Feb 04 j 18:49	30°♂♂			170 Mar 28 j 12:37	0°♂	
direct	165 Mar 06 j 13:03	24°♂24'21		evening set	170 Apr 27 j 13:54	20°♂28'44	
	165 Apr 08 j 06:13	0°♂			170 May 11 j 19:59	0°♂	
	165 Jun 12 j 07:42	0°♂					
	165 Jul 31 j 07:07	0°♂		conjunction	170 Jun 17 j 10:16	23°♂59'00	0°51'39
desc. node	165 Aug 05 j 10:03	3°♂22'30		minimum elong	170 Jun 17 j 08:53	23°♂56'45	0°51'37
	165 Sep 13 j 00:06	0°♂			170 Jun 26 j 17:43	0°♂	
	165 Oct 23 j 14:33	0°♂		max. Earth dist.	170 Jun 29 j 11:05	1°♂45'18	2.64910 AU
	165 Dec 01 j 08:59	0°♂		morning rise	170 Aug 03 j 12:11	24°♂09'58	
evening set	165 Dec 27 j 01:54	20°♂15'59			170 Aug 12 j 16:42	0°♂	
	166 Jan 08 j 09:34	0°♂			170 Sep 29 j 05:03	0°♂	
	166 Feb 15 j 16:03	0°♂			170 Nov 16 j 04:44	0°♂	
					171 Jan 04 j 09:14	0°♂	
conjunction	166 Mar 04 j 11:41	12°♂56'52	0°-51'-56		171 Feb 26 j 17:54	0°♂	
minimum elong	166 Mar 04 j 14:39	13°♂02'32	0°51'55	desc. node	171 Mar 28 j 06:45	13°♂42'34	
	166 Mar 27 j 01:23	0°♂		retrograde	171 May 12 j 03:17	23°♂59'40	
max. Earth dist.	166 Apr 23 j 11:34	20°♂08'29	2.44412 AU	opposition	171 Jun 12 j 02:11	18°♂40'06	-4°-31'-25
	166 May 07 j 06:02	0°♂		greatest brilliancy	171 Jun 13 j 06:30	18°♂19'53	-2.7m
morning rise	166 May 08 j 09:54	0°♂49'25		min. Earth dist.	171 Jun 17 j 18:04	17°♂03'16	0.39820 AU
asc. node	166 Jun 04 j 21:03	19°♂57'22		direct	171 Jul 14 j 20:35	12°♂36'31	
	166 Jun 19 j 16:29	0°♂			171 Sep 08 j 11:48	0°♂	
	166 Aug 04 j 16:21	0°♂			171 Oct 27 j 07:06	0°♂	
	166 Sep 22 j 22:56	0°♂			171 Dec 10 j 02:56	0°♂	
	166 Nov 18 j 09:55	0°♂			172 Jan 22 j 13:29	0°♂	
retrograde	167 Jan 21 j 14:08	17°♂59'04		asc. node	172 Jan 25 j 18:16	2°♂11'25	
opposition	167 Feb 28 j 23:42	9°♂15'24	3°59'45		172 Mar 06 j 22:31	0°♂	

	172 Apr 21 j 14:20	0°♊			177 Feb 26 j 12:02	0°♊	
evening set	172 Jun 07 j 22:53	0°♊24'44			177 Apr 06 j 09:01	0°♊	
	172 Jun 07 j 07:22	0°♊			177 May 16 j 07:44	0°♊	
max. Earth dist.	172 Jul 22 j 01:01	28°♊28'16	2.67459 AU		177 Jun 27 j 18:55	0°♊	
					177 Aug 14 j 20:53	0°♊	
conjunction	172 Jul 24 j 17:52	0°♊11'30	1°09'18	asc. node	177 Sep 16 j 14:43	16°♊11'02	
minimum elong	172 Jul 24 j 17:38	0°♊11'06	1°09'18	retrograde	177 Oct 29 j 09:39	26°♊11'57	
	172 Jul 24 j 10:39	0°♊		min. Earth dist.	177 Dec 04 j 04:51	17°♊52'48	0.62914 AU
morning rise	172 Sep 07 j 09:53	28°♊46'36		opposition	177 Dec 08 j 07:13	16°♊14'16	3°06'53
	172 Sep 09 j 07:27	0°♊		greatest brilliancy	177 Dec 07 j 14:52	16°♊30'40	-1.5m
	172 Oct 25 j 10:10	0°♊		direct	178 Jan 15 j 16:52	7°♊11'39	
	172 Dec 09 j 15:11	0°♊			178 Mar 31 j 10:29	0°♊	
	173 Jan 23 j 02:11	0°♊			178 May 26 j 03:04	0°♊	
desc. node	173 Feb 12 j 05:47	13°♊41'58			178 Jul 14 j 11:47	0°♊	
	173 Mar 08 j 05:18	0°♊			178 Aug 29 j 05:17	0°♊	
	173 Apr 22 j 06:49	0°♊		evening set	178 Oct 04 j 16:18	25°♊24'46	
	173 Jun 13 j 03:02	0°♊		desc. node	178 Oct 05 j 03:20	25°♊44'29	
retrograde	173 Jul 28 j 13:57	12°♊19'57			178 Oct 11 j 01:38	0°♊	
min. Earth dist.	173 Aug 24 j 06:22	7°♊47'51	0.40023 AU	max. Earth dist.	178 Oct 20 j 08:23	6°♊43'55	2.44447 AU
greatest brilliancy	173 Aug 29 j 04:32	6°♊18'58	-2.7m		178 Nov 20 j 15:26	0°♊	
opposition	173 Aug 30 j 16:04	5°♊52'04	-5°-36'-14				
direct	173 Sep 30 j 00:14	0°♊23'15		conjunction	178 Nov 28 j 09:50	5°♊53'51	0°-33'-40
asc. node	173 Dec 12 j 17:52	25°♊15'22		minimum elong	178 Nov 28 j 07:55	5°♊50'11	0°33'40
	173 Dec 21 j 12:11	0°♊			178 Dec 29 j 15:35	0°♊	
	174 Feb 10 j 19:46	0°♊		morning rise	179 Jan 30 j 07:34	24°♊49'15	
	174 Mar 31 j 19:21	0°♊			179 Feb 05 j 21:41	0°♊	
	174 May 19 j 06:25	0°♊			179 Mar 16 j 06:38	0°♊	
	174 Jul 06 j 04:33	0°♊			179 Apr 24 j 15:40	0°♊	
evening set	174 Jul 15 j 19:17	6°♊05'13			179 Jun 04 j 22:30	0°♊	
max. Earth dist.	174 Aug 14 j 18:34	25°♊16'22	2.64602 AU		179 Jul 19 j 04:21	0°♊	
	174 Aug 22 j 01:40	0°♊		asc. node	179 Aug 04 j 14:51	10°♊27'35	
					179 Sep 06 j 14:33	0°♊	
conjunction	174 Aug 30 j 14:12	5°♊33'08	1°00'04		179 Nov 19 j 15:03	0°♊	
minimum elong	174 Aug 30 j 15:14	5°♊34'49	1°00'04	retrograde	179 Dec 03 j 06:35	1°♊06'58	
	174 Oct 06 j 10:48	0°♊			179 Dec 16 j 05:44	30°♊	
morning rise	174 Oct 15 j 00:34	5°♊47'49		opposition	180 Jan 12 j 07:45	21°♊23'22	4°27'09
	174 Nov 19 j 03:26	0°♊		greatest brilliancy	180 Jan 12 j 04:46	21°♊26'20	-1.2m
desc. node	174 Dec 31 j 05:47	29°♊59'14		min. Earth dist.	180 Jan 12 j 01:18	21°♊29'49	0.67496 AU
	174 Dec 31 j 06:12	0°♊		direct	180 Feb 21 j 21:06	11°♊37'10	
	175 Feb 10 j 02:34	0°♊			180 Apr 27 j 02:55	0°♊	
	175 Mar 22 j 06:01	0°♊			180 Jun 21 j 21:46	0°♊	
	175 May 01 j 15:26	0°♊			180 Aug 08 j 09:10	0°♊	
	175 Jun 13 j 03:29	0°♊		desc. node	180 Aug 22 j 01:53	9°♊14'32	
	175 Aug 02 j 15:12	0°♊			180 Sep 20 j 15:47	0°♊	
retrograde	175 Sep 20 j 16:04	13°♊47'23			180 Oct 31 j 03:47	0°♊	
min. Earth dist.	175 Oct 21 j 09:11	7°♊18'03	0.52435 AU	evening set	180 Nov 29 j 23:48	23°♊00'26	
opposition	175 Oct 28 j 19:47	4°♊29'02	0°-5'-27		180 Dec 08 j 22:11	0°♊	
greatest brilliancy	176 May 18 j 15:19	12°♊37'27	-4.1m		181 Jan 15 j 22:53	0°♊	
asc. node	175 Oct 30 j 16:18	3°♊47'05					
	175 Nov 10 j 21:23	30°♊		conjunction	181 Feb 04 j 00:29	15°♊01'21	-1°-4'-19
direct	175 Dec 02 j 18:18	26°♊47'17		minimum elong	181 Feb 04 j 01:35	15°♊03'30	1°04'20
	175 Dec 26 j 07:33	0°♊			181 Feb 23 j 04:46	0°♊	
	176 Mar 05 j 01:55	0°♊		max. Earth dist.	181 Mar 22 j 18:43	21°♊09'46	2.39263 AU
	176 Apr 27 j 08:43	0°♊			181 Apr 03 j 12:29	0°♊	
	176 Jun 16 j 04:46	0°♊		morning rise	181 Apr 14 j 01:53	7°♊50'51	
	176 Aug 02 j 17:13	0°♊			181 May 14 j 15:25	0°♊	
evening set	176 Aug 21 j 23:06	12°♊34'27		asc. node	181 Jun 21 j 14:01	26°♊17'00	
max. Earth dist.	176 Sep 10 j 01:38	25°♊19'37	2.56563 AU		181 Jun 27 j 02:42	0°♊	
	176 Sep 16 j 23:12	0°♊			181 Aug 12 j 11:58	0°♊	
					181 Oct 02 j 08:32	0°♊	
conjunction	176 Oct 08 j 19:49	15°♊03'26	0°23'50		181 Dec 08 j 10:46	0°♊	
minimum elong	176 Oct 08 j 20:46	15°♊05'06	0°23'50	retrograde	182 Jan 06 j 15:09	4°♊33'30	
	176 Oct 29 j 23:38	0°♊			182 Feb 02 j 09:38	30°♊	
desc. node	176 Nov 17 j 04:53	13°♊08'58		opposition	182 Feb 14 j 17:25	25°♊28'17	4°24'30
morning rise	176 Nov 28 j 07:41	21°♊17'59		greatest brilliancy	182 Feb 15 j 10:04	25°♊11'57	-1.3m
	176 Dec 10 j 01:23	0°♊		min. Earth dist.	182 Feb 18 j 07:59	24°♊03'24	0.65531 AU
	177 Jan 18 j 16:07	0°♊		direct	182 Mar 28 j 02:01	15°♊26'19	

	182 May 22 j 11:04	0°♎		conjunction	187 Jul 11 j 06:54	16°♊39'47	1°05'40
desc. node	182 Jul 10 j 01:08	26°♎04'13		minimum elong	187 Jul 11 j 06:07	16°♊38'33	1°05'40
	182 Jul 16 j 10:58	0°♊		max. Earth dist.	187 Jul 14 j 04:46	18°♊31'08	2.67122 AU
	182 Aug 30 j 15:32	0°♌			187 Aug 01 j 05:19	0°♏	
	182 Oct 10 j 18:01	0°♐		morning rise	187 Aug 25 j 12:16	15°♏28'25	
	182 Nov 18 j 17:05	0°♑			187 Sep 17 j 06:09	0°♎	
	182 Dec 26 j 20:33	0°♒			187 Nov 02 j 22:02	0°♊	
	183 Feb 03 j 06:31	0°♈			187 Dec 19 j 04:52	0°♌	
evening set	183 Feb 08 j 15:40	4°♈08'44			188 Feb 03 j 12:56	0°♐	
	183 Mar 14 j 20:15	0°♑		desc. node	188 Feb 29 j 22:51	16°♐50'33	
conjunction	183 Apr 12 j 20:01	21°♑10'25	0°-16'-29		188 Mar 22 j 03:16	0°♑	
minimum elong	183 Apr 12 j 21:07	21°♑12'25	0°16'30	retrograde	188 May 15 j 23:08	0°♒	
	183 Apr 25 j 05:17	0°♉		min. Earth dist.	188 Jun 30 j 07:21	11°♒30'55	
asc. node	183 May 09 j 12:04	10°♉01'05		opposition	188 Jul 28 j 16:20	6°♒52'59	0.37563 AU
max. Earth dist.	183 May 21 j 06:17	18°♉08'25	2.52495 AU	greatest brilliancy	188 Jul 30 j 22:14	6°♒16'52	-6°-52'-39
	183 Jun 07 j 17:17	0°♊		direct	188 Jul 30 j 08:55	6°♒25'48	-2.9m
morning rise	183 Jun 09 j 03:15	0°♊57'06			188 Aug 29 j 11:39	1°♒21'23	
	183 Jul 23 j 09:22	0°♋		asc. node	188 Nov 16 j 01:11	0°♈	
	183 Sep 09 j 06:40	0°♏			188 Dec 29 j 08:29	26°♈10'12	
	183 Oct 30 j 07:39	0°♎			189 Jan 04 j 10:49	0°♑	
	183 Dec 29 j 21:08	0°♊			189 Feb 20 j 15:40	0°♉	
retrograde	184 Feb 16 j 20:21	11°♊21'31			189 Apr 08 j 21:38	0°♊	
opposition	184 Mar 24 j 16:34	3°♊21'26	2°43'40	evening set	189 May 26 j 12:03	0°♋	
greatest brilliancy	184 Mar 25 j 17:43	2°♊57'59	-1.7m		189 Jul 01 j 08:21	22°♋35'57	
min. Earth dist.	184 Mar 31 j 20:15	0°♊41'39	0.57116 AU	max. Earth dist.	189 Jul 13 j 00:44	0°♏	
	184 Apr 02 j 18:20	30°♌			189 Aug 05 j 08:12	14°♏51'20	2.66360 AU
direct	184 May 03 j 23:50	23°♌46'23		conjunction	189 Aug 16 j 04:19	21°♏48'51	1°06'49
desc. node	184 May 26 j 23:33	26°♌58'18		minimum elong	189 Aug 16 j 04:56	21°♏49'49	1°06'48
	184 Jun 05 j 20:02	0°♊			189 Aug 28 j 20:24	0°♎	
	184 Aug 03 j 09:49	0°♌		morning rise	189 Sep 29 j 21:24	20°♎59'08	
	184 Sep 16 j 11:06	0°♐			189 Oct 13 j 10:44	0°♊	
	184 Oct 26 j 15:38	0°♑			189 Nov 26 j 14:47	0°♌	
	184 Dec 04 j 13:35	0°♒			190 Jan 08 j 10:21	0°♐	
	185 Jan 12 j 15:49	0°♈		desc. node	190 Jan 16 j 21:36	6°♐02'06	
	185 Feb 21 j 21:47	0°♑			190 Feb 19 j 03:48	0°♑	
asc. node	185 Mar 26 j 11:46	23°♑23'12			190 Apr 01 j 08:48	0°♒	
	185 Apr 04 j 22:07	0°♉			190 May 13 j 07:35	0°♈	
evening set	185 Apr 08 j 12:57	2°♉31'08			190 Jun 28 j 13:50	0°♑	
	185 May 18 j 21:27	0°♊		retrograde	190 Sep 02 j 02:58	23°♑07'28	
conjunction	185 Jun 01 j 00:50	8°♊43'42	0°37'26	min. Earth dist.	190 Sep 30 j 15:21	17°♑31'02	0.47258 AU
minimum elong	185 May 31 j 23:25	8°♊41'22	0°37'26	opposition	190 Oct 08 j 18:50	14°♑37'20	-2°-2'-54
max. Earth dist.	185 Jun 19 j 12:32	20°♊51'23	2.62431 AU	greatest brilliancy	190 Oct 07 j 22:14	14°♑55'44	-2.3m
	185 Jul 03 j 14:56	0°♋		direct	190 Nov 10 j 23:28	7°♑43'18	
morning rise	185 Jul 20 j 00:10	10°♋31'51		asc. node	190 Nov 16 j 08:04	7°♑54'31	
	185 Aug 19 j 15:56	0°♏			191 Jan 20 j 19:37	0°♉	
	185 Oct 06 j 17:01	0°♎			191 Mar 16 j 19:59	0°♊	
	185 Nov 25 j 02:26	0°♊			191 May 06 j 12:43	0°♋	
	186 Jan 17 j 01:59	0°♌		evening set	191 Jun 24 j 10:07	0°♏	
retrograde	186 Apr 13 j 00:48	29°♌18'11			191 Aug 07 j 20:06	28°♏11'57	
desc. node	186 Apr 13 j 22:51	29°♌17'53		max. Earth dist.	191 Aug 10 j 14:49	0°♎	
opposition	186 May 15 j 22:09	23°♌08'51	-1°-50'-40		191 Aug 30 j 19:26	13°♎13'10	2.60283 AU
greatest brilliancy	186 May 16 j 17:36	22°♌53'22	-2.4m	conjunction	191 Sep 23 j 10:58	29°♎02'27	0°41'01
min. Earth dist.	186 May 24 j 00:02	20°♌35'28	0.44240 AU	minimum elong	191 Sep 23 j 12:13	29°♎04'34	0°41'01
direct	186 Jun 20 j 16:04	15°♌42'26			191 Sep 24 j 20:56	0°♊	
	186 Aug 09 j 09:38	0°♐			191 Nov 07 j 02:31	0°♌	
	186 Sep 27 j 18:57	0°♑		morning rise	191 Nov 10 j 06:26	2°♌14'57	
	186 Nov 09 j 05:44	0°♒		desc. node	191 Dec 04 j 20:24	19°♌58'08	
	186 Dec 20 j 13:35	0°♈			191 Dec 18 j 12:23	0°♐	
	187 Jan 31 j 12:49	0°♑			192 Jan 27 j 12:37	0°♑	
asc. node	187 Feb 11 j 10:31	7°♑38'42			192 Mar 06 j 17:52	0°♒	
	187 Mar 15 j 22:06	0°♉			192 Apr 15 j 00:21	0°♈	
	187 Apr 29 j 21:56	0°♊			192 May 25 j 12:12	0°♑	
evening set	187 May 24 j 07:39	15°♊53'36			192 Jul 08 j 05:55	0°♉	
	187 Jun 15 j 05:20	0°♋			192 Aug 31 j 01:45	0°♊	
				asc. node	192 Oct 03 j 07:47	10°♊19'28	

retrograde	192 Oct 14 j 21:18	11°II12'46			197 Oct 18 j 15:54	0°𐌸	
min. Earth dist.	192 Nov 17 j 19:54	3°II32'12	0.59410 AU		197 Nov 26 j 11:55	0°𐌹	
opposition	192 Nov 23 j 08:29	1°II20'51	2°08'38		198 Jan 03 j 13:14	0°≈	
greatest brilliancy	192 Nov 22 j 16:39	1°II36'33	-1.6m	greatest brilliancy	198 Jan 08 j 16:35	4°≈03'12	1.2m
	192 Nov 26 j 19:01	30°R𐌹		evening set	198 Jan 12 j 00:37	6°≈40'47	
direct	192 Dec 30 j 12:59	22°𐌹44'25			198 Feb 10 j 20:31	0°𐌹	
	193 Feb 06 j 02:54	0°II					
	193 Apr 11 j 22:16	0°𐌹		conjunction	198 Mar 19 j 13:45	27°𐌹58'36	0°-40'-13
	193 Jun 03 j 09:43	0°𐌹		minimum elong	198 Mar 19 j 16:27	28°𐌹03'39	0°40'12
	193 Jul 21 j 20:23	0°𐌹			198 Mar 22 j 06:46	0°𐌹	
	193 Sep 05 j 07:50	0°𐌹			198 May 02 j 11:55	0°𐌹	
evening set	193 Sep 16 j 13:52	7°𐌹42'35		max. Earth dist.	198 May 05 j 02:52	1°𐌹51'32	2.47404 AU
max. Earth dist.	193 Oct 01 j 15:30	18°𐌹12'50	2.49499 AU	morning rise	198 May 20 j 15:37	12°𐌹44'28	
	193 Oct 18 j 04:57	0°𐌹		asc. node	198 May 26 j 04:39	16°𐌹34'35	
desc. node	193 Oct 21 j 19:25	2°𐌹35'49			198 Jun 14 j 21:40	0°II	
					198 Jul 30 j 16:46	0°𐌹	
conjunction	193 Nov 06 j 21:19	14°𐌹19'21	0°-10'-13		198 Sep 17 j 07:22	0°𐌹	
minimum elong	193 Nov 06 j 20:47	14°𐌹18'21	0°10'14		198 Nov 10 j 00:41	0°𐌹	
behind sun begin	193 Nov 06 j 02:47	13°𐌹45'16		retrograde	199 Jan 30 j 15:37	26°𐌹25'43	
behind sun end	193 Nov 07 j 14:46	14°𐌹51'27		opposition	199 Mar 09 j 13:24	17°𐌹55'47	3°37'35
	193 Nov 27 j 22:35	0°𐌸		greatest brilliancy	199 Mar 10 j 14:22	17°𐌹31'53	-1.5m
morning rise	194 Jan 03 j 01:00	27°𐌸35'43		min. Earth dist.	199 Mar 15 j 10:07	15°𐌹41'14	0.61147 AU
	194 Jan 06 j 03:28	0°𐌹		direct	199 Apr 19 j 13:37	8°𐌹02'24	
	194 Feb 13 j 13:43	0°≈		desc. node	199 Jun 13 j 16:45	23°𐌹09'30	
	194 Mar 24 j 01:51	0°𐌹			199 Jun 27 j 07:23	0°𐌹	
	194 May 02 j 13:54	0°𐌹			199 Aug 15 j 14:11	0°𐌹	
	194 Jun 13 j 02:35	0°𐌹			199 Sep 26 j 21:57	0°𐌸	
	194 Jul 28 j 03:20	0°II			199 Nov 05 j 09:50	0°𐌹	
asc. node	194 Aug 21 j 06:15	14°II36'09			199 Dec 13 j 21:25	0°≈	
	194 Sep 18 j 22:28	0°𐌹			200 Jan 21 j 14:52	0°𐌹	
retrograde	194 Nov 19 j 22:27	18°𐌹09'34			200 Mar 01 j 12:33	0°𐌹	
min. Earth dist.	194 Dec 28 j 06:30	8°𐌹59'59	0.66469 AU	evening set	200 Mar 18 j 07:42	12°𐌹15'35	
opposition	194 Dec 30 j 01:23	8°𐌹16'53	4°06'33	asc. node	200 Apr 12 j 02:34	29°𐌹55'28	
greatest brilliancy	194 Dec 29 j 15:36	8°𐌹26'43	-1.3m		200 Apr 12 j 05:09	0°𐌹	
	195 Jan 24 j 23:30	30°RII					
direct	195 Feb 07 j 21:56	28°II44'29		conjunction	200 May 14 j 04:47	22°𐌹04'49	0°19'10
	195 Feb 22 j 18:14	0°𐌹		minimum elong	200 May 14 j 03:49	22°𐌹03'11	0°19'10
	195 May 10 j 07:22	0°𐌹			200 May 25 j 22:31	0°II	
	195 Jul 01 j 11:16	0°𐌹		max. Earth dist.	200 Jun 08 j 21:09	9°II17'37	2.59147 AU
	195 Aug 17 j 01:14	0°𐌹		morning rise	200 Jul 04 j 18:12	26°II14'43	
desc. node	195 Sep 08 j 17:55	15°𐌹33'30			200 Jul 10 j 13:32	0°𐌹	
	195 Sep 29 j 02:15	0°𐌹			200 Aug 26 j 19:07	0°𐌹	
evening set	195 Nov 06 j 11:29	28°𐌹23'52			200 Oct 14 j 14:55	0°𐌹	
	195 Nov 08 j 14:12	0°𐌸			200 Dec 05 j 06:22	0°𐌹	
	195 Dec 17 j 10:11	0°𐌹			201 Feb 05 j 20:08	0°𐌹	
max. Earth dist.	195 Dec 18 j 15:47	0°𐌹58'01	2.37606 AU	retrograde	201 Mar 19 j 09:20	8°𐌹37'54	
				opposition	201 Apr 23 j 01:44	1°𐌹38'13	0°23'43
conjunction	196 Jan 07 j 08:39	16°𐌹27'59	-1°-1'-49	greatest brilliancy	201 Apr 23 j 07:05	1°𐌹33'35	-2.1m
minimum elong	196 Jan 07 j 06:50	16°𐌹24'24	1°01'50		201 Apr 27 j 18:44	30°R𐌹	
	196 Jan 24 j 12:07	0°≈		desc. node	201 Apr 30 j 15:15	29°𐌹01'16	
	196 Mar 02 j 18:06	0°𐌹		min. Earth dist.	201 May 01 j 12:10	28°𐌹43'41	0.49494 AU
morning rise	196 Mar 17 j 03:45	11°𐌹07'26		direct	201 May 31 j 04:38	23°𐌹03'28	
	196 Apr 11 j 00:59	0°𐌹			201 Jul 03 j 23:45	0°𐌹	
	196 May 22 j 03:17	0°𐌹			201 Aug 28 j 12:45	0°𐌸	
	196 Jul 04 j 17:51	0°II			201 Oct 10 j 12:02	0°𐌹	
asc. node	196 Jul 08 j 05:28	2°II18'37			201 Nov 19 j 19:05	0°≈	
	196 Aug 20 j 19:24	0°𐌹			201 Dec 29 j 20:37	0°𐌹	
	196 Oct 13 j 13:15	0°𐌹			202 Feb 08 j 21:57	0°𐌹	
retrograde	196 Dec 23 j 13:06	21°𐌹37'15		asc. node	202 Feb 28 j 01:58	13°𐌹37'40	
opposition	197 Feb 01 j 03:21	12°𐌹14'25	4°35'16		202 Mar 23 j 14:26	0°𐌹	
greatest brilliancy	197 Feb 01 j 12:27	12°𐌹05'23	-1.2m	evening set	202 May 07 j 16:48	0°II24'13	
min. Earth dist.	197 Feb 03 j 05:32	11°𐌹24'40	0.67083 AU		202 May 07 j 02:10	0°II	
direct	197 Mar 14 j 08:29	2°𐌹15'06			202 Jun 22 j 02:14	0°𐌹	
	197 Jun 05 j 05:57	0°𐌹					
	197 Jul 25 j 17:41	0°𐌹		conjunction	202 Jun 26 j 08:35	2°𐌹44'36	0°58'01
desc. node	197 Jul 26 j 16:46	0°𐌹37'13		minimum elong	202 Jun 26 j 07:22	2°𐌹42'38	0°58'00
	197 Sep 07 j 21:28	0°𐌹		max. Earth dist.	202 Jul 05 j 00:19	8°𐌹17'55	2.65937 AU

	202 Aug 08 j 00:50	0°♈		opposition	207 Nov 08 j 00:09	15°♏03'40	0°50'23
morning rise	202 Aug 11 j 14:50	2°♈16'38		greatest brilliancy	207 Nov 07 j 15:46	15°♏11'48	-1.9m
	202 Sep 24 j 08:08	0°♍		direct	207 Dec 13 j 18:50	7°♏00'11	
	202 Nov 10 j 18:05	0°♊			208 Feb 25 j 18:29	0°♐	
	202 Dec 28 j 15:04	0°♋			208 Apr 21 j 13:06	0°♑	
	203 Feb 16 j 08:15	0°♌			208 Jun 11 j 03:57	0°♈	
desc. node	203 Mar 18 j 14:00	16°♌45'39			208 Jul 28 j 23:46	0°♍	
	203 Apr 15 j 14:12	0°♍		evening set	208 Aug 30 j 23:35	21°♍40'20	
retrograde	203 May 29 j 23:22	10°♍25'21			208 Sep 12 j 07:44	0°♊	
opposition	203 Jun 29 j 08:51	5°♍23'21	-5°-53'-13	max. Earth dist.	208 Sep 17 j 07:33	3°♊24'15	2.54186 AU
greatest brilliancy	203 Jun 30 j 04:13	5°♍10'12	-2.8m				
min. Earth dist.	203 Jul 02 j 12:39	4°♍31'59	0.38212 AU	conjunction	208 Oct 18 j 20:29	25°♊23'55	0°12'12
	203 Jul 29 j 13:04	30°♌♌		minimum elong	208 Oct 18 j 21:02	25°♊24'54	0°12'12
direct	203 Jul 30 j 10:57	29°♌59'39		behind sun begin	208 Oct 18 j 06:47	24°♊59'35	
	203 Jul 31 j 08:50	0°♍		behind sun end	208 Oct 19 j 11:18	25°♊50'14	
	203 Oct 16 j 22:09	0°♎			208 Oct 25 j 07:16	0°♋	
	203 Dec 02 j 16:10	0°♏		desc. node	208 Nov 07 j 11:12	9°♋29'54	
asc. node	204 Jan 16 j 01:36	29°♏45'43			208 Dec 05 j 06:14	0°♌	
	204 Jan 16 j 10:07	0°♐		morning rise	208 Dec 10 j 08:30	3°♌49'08	
	204 Mar 01 j 12:33	0°♑			209 Jan 13 j 17:33	0°♍	
	204 Apr 16 j 14:57	0°♐			209 Feb 21 j 09:47	0°♎	
	204 Jun 02 j 14:00	0°♑			209 Apr 01 j 02:58	0°♏	
evening set	204 Jun 16 j 14:39	8°♑54'17			209 May 10 j 20:31	0°♐	
	204 Jul 19 j 19:57	0°♈			209 Jun 21 j 20:05	0°♑	
max. Earth dist.	204 Jul 27 j 08:03	4°♈46'40	2.67297 AU		209 Aug 07 j 07:46	0°♐	
				asc. node	209 Sep 06 j 22:47	16°♐50'26	
conjunction	204 Aug 01 j 22:35	8°♈21'06	1°09'33		209 Oct 08 j 23:33	0°♑	
minimum elong	204 Aug 01 j 22:41	8°♈21'15	1°09'33	retrograde	209 Nov 06 j 08:45	4°♑41'50	
	204 Sep 04 j 16:07	0°♍			209 Dec 02 j 15:38	30°♌♌	
morning rise	204 Sep 15 j 11:36	7°♍00'13		min. Earth dist.	209 Dec 13 j 02:40	26°♌03'46	0.64445 AU
	204 Oct 20 j 13:59	0°♊		opposition	209 Dec 16 j 09:44	24°♌44'22	3°33'04
	204 Dec 04 j 09:07	0°♋		greatest brilliancy	209 Dec 15 j 18:50	24°♌59'19	-1.4m
	205 Jan 17 j 03:27	0°♌		direct	210 Jan 24 j 09:09	15°♌29'59	
desc. node	205 Feb 02 j 13:51	11°♌24'47			210 Mar 22 j 02:16	0°♑	
	205 Mar 01 j 04:27	0°♍			210 May 20 j 05:29	0°♈	
	205 Apr 13 j 06:55	0°♎			210 Jul 09 j 10:23	0°♍	
	205 May 28 j 23:27	0°♏			210 Aug 24 j 10:49	0°♊	
retrograde	205 Aug 11 j 13:13	28°♏35'20		desc. node	210 Sep 25 j 10:54	22°♊11'05	
min. Earth dist.	205 Sep 07 j 10:07	23°♏46'55	0.42315 AU		210 Oct 06 j 09:05	0°♋	
greatest brilliancy	205 Sep 13 j 14:19	21°♏47'49	-2.6m	evening set	210 Oct 15 j 19:50	6°♋51'18	
opposition	205 Sep 15 j 01:49	21°♏19'07	-4°-20'-39	max. Earth dist.	210 Nov 03 j 06:45	20°♋29'06	2.41646 AU
direct	205 Oct 16 j 07:50	15°♏20'26			210 Nov 15 j 22:17	0°♌	
asc. node	205 Dec 03 j 00:19	27°♏14'39					
	205 Dec 09 j 05:43	0°♐		conjunction	210 Dec 11 j 22:52	19°♌57'02	0°-46'-3
	206 Feb 03 j 16:14	0°♑		minimum elong	210 Dec 11 j 20:23	19°♌52'15	0°46'03
	206 Mar 26 j 03:30	0°♐			210 Dec 24 j 20:53	0°♍	
	206 May 14 j 05:59	0°♑			211 Feb 01 j 01:06	0°♎	
	206 Jul 01 j 11:17	0°♈		morning rise	211 Feb 16 j 02:17	11°♎50'15	
evening set	206 Jul 24 j 03:19	14°♈21'22			211 Mar 11 j 08:21	0°♏	
	206 Aug 17 j 10:58	0°♍			211 Apr 19 j 15:47	0°♐	
max. Earth dist.	206 Aug 20 j 12:08	1°♍58'55	2.63281 AU		211 May 30 j 19:31	0°♑	
					211 Jul 13 j 17:13	0°♐	
conjunction	206 Sep 08 j 02:10	14°♍10'02	0°54'14	asc. node	211 Jul 25 j 21:07	7°♐53'38	
minimum elong	206 Sep 08 j 03:21	14°♍12'00	0°54'13		211 Aug 30 j 22:50	0°♑	
	206 Oct 01 j 19:06	0°♊			211 Oct 30 j 06:34	0°♈	
morning rise	206 Oct 24 j 03:53	15°♊15'29		retrograde	211 Dec 10 j 23:10	8°♈53'28	
	206 Nov 14 j 08:00	0°♋			212 Jan 18 j 01:34	30°♌♌	
desc. node	206 Dec 21 j 12:45	26°♋36'27		opposition	212 Jan 19 j 21:24	29°♑16'17	4°33'31
	206 Dec 26 j 04:33	0°♌		greatest brilliancy	212 Jan 19 j 22:36	29°♑15'05	-1.2m
	207 Feb 04 j 17:12	0°♍		min. Earth dist.	212 Jan 20 j 10:53	29°♑02'49	0.67643 AU
	207 Mar 16 j 11:17	0°♎		direct	212 Feb 29 j 17:38	19°♑24'24	
	207 Apr 25 j 08:09	0°♏			212 Apr 16 j 17:31	0°♈	
	207 Jun 05 j 19:28	0°♐			212 Jun 15 j 19:53	0°♍	
	207 Jul 22 j 08:40	0°♑			212 Aug 03 j 04:20	0°♊	
retrograde	207 Sep 30 j 06:26	24°♑38'39		desc. node	212 Aug 12 j 09:55	6°♊08'29	
asc. node	207 Oct 20 j 22:59	21°♑32'20			212 Sep 15 j 18:10	0°♋	
min. Earth dist.	207 Nov 01 j 04:17	17°♑42'16	0.55097 AU		212 Oct 26 j 08:32	0°♌	

	212 Dec 04 j 03:31	0°☾		morning rise	217 Jul 28 j 09:38	18°☾51'37	
evening set	212 Dec 14 j 23:11	8°☾30'38			217 Aug 14 j 22:40	0°♈	
	213 Jan 11 j 04:01	0°≈			217 Oct 01 j 15:42	0°♍	
	213 Feb 18 j 09:33	0°♋			217 Nov 19 j 04:02	0°♊	
					218 Jan 08 j 16:01	0°♌	
conjunction	213 Feb 20 j 06:15	1°♋26'40	0°-58'-50		218 Mar 07 j 20:59	0°♌	
minimum elong	213 Feb 20 j 08:46	1°♋31'33	0°58'50	desc. node	218 Apr 04 j 06:17	9°♌40'58	
	213 Mar 29 j 17:09	0°♍		retrograde	218 Apr 28 j 21:16	13°♌04'53	
max. Earth dist.	213 Apr 12 j 04:38	10°♍00'19	2.42011 AU	opposition	218 May 30 j 15:08	7°♌24'21	-3°-20'-43
morning rise	213 Apr 28 j 07:47	21°♍45'56		greatest brilliancy	218 May 31 j 19:13	7°♌03'17	-2.6m
	213 May 09 j 19:31	0°♎		min. Earth dist.	218 Jun 06 j 16:38	5°♌17'32	0.41627 AU
asc. node	213 Jun 11 j 19:33	22°♎58'42		direct	218 Jul 03 j 19:37	0°♌43'07	
	213 Jun 22 j 04:39	0°♏			218 Sep 17 j 18:31	0°☾	
	213 Aug 07 j 06:15	0°☾			218 Nov 01 j 19:04	0°≈	
	213 Sep 26 j 00:35	0°♈			218 Dec 14 j 06:11	0°♋	
	213 Nov 24 j 04:01	0°♍			219 Jan 25 j 22:01	0°♍	
retrograde	214 Jan 15 j 02:01	12°♍37'26		asc. node	219 Feb 01 j 16:58	4°♍42'30	
opposition	214 Feb 22 j 19:15	3°♍43'30	4°11'42		219 Mar 10 j 18:19	0°♎	
greatest brilliancy	214 Feb 23 j 15:28	3°♍23'48	-1.4m		219 Apr 25 j 01:38	0°♏	
min. Earth dist.	214 Feb 27 j 05:15	2°♍00'17	0.64244 AU	evening set	219 Jun 02 j 08:46	24°♏45'07	
	214 Mar 04 j 12:38	30°♎♏			219 Jun 10 j 13:26	0°☾	
direct	214 Apr 05 j 02:36	23°♏42'38					
	214 May 09 j 06:49	0°♍		conjunction	219 Jul 19 j 15:06	24°☾54'36	1°08'16
desc. node	214 Jun 30 j 08:22	24°♍28'16		minimum elong	219 Jul 19 j 14:38	24°☾53'52	1°08'16
	214 Jul 09 j 19:31	0°♊		max. Earth dist.	219 Jul 19 j 11:08	24°☾48'17	2.67413 AU
	214 Aug 25 j 01:51	0°♌			219 Jul 27 j 14:56	0°♈	
	214 Oct 05 j 13:07	0°♌		morning rise	219 Sep 02 j 11:39	23°♈32'10	
	214 Nov 13 j 16:18	0°☾			219 Sep 12 j 13:28	0°♍	
	214 Dec 21 j 22:07	0°≈			219 Oct 28 j 21:51	0°♊	
	215 Jan 29 j 09:54	0°♋			219 Dec 13 j 13:42	0°♌	
evening set	215 Feb 23 j 07:24	18°♋58'33			220 Jan 27 j 18:09	0°♌	
	215 Mar 10 j 01:27	0°♍		desc. node	220 Feb 20 j 05:13	15°♌34'56	
	215 Apr 20 j 11:49	0°♎			220 Mar 13 j 02:22	0°☾	
					220 Apr 29 j 16:21	0°≈	
conjunction	215 Apr 25 j 05:48	3°♎20'48	0°-2'-51	retrograde	220 Jul 16 j 18:53	29°≈35'52	
minimum elong	215 Apr 25 j 05:56	3°♎21'02	0°02'52	min. Earth dist.	220 Aug 12 j 20:22	25°≈08'20	0.38595 AU
behind sun begin	215 Apr 24 j 06:06	2°♎39'10		greatest brilliancy	220 Aug 16 j 11:34	24°≈06'21	-2.8m
behind sun end	215 Apr 26 j 05:46	4°♎02'52		opposition	220 Aug 17 j 16:25	23°≈45'44	-6°-22'-40
asc. node	215 Apr 29 j 19:27	6°♎32'54		direct	220 Sep 16 j 12:16	18°≈36'53	
max. Earth dist.	215 May 29 j 01:51	26°♎40'10	2.55035 AU		220 Nov 01 j 01:53	0°♋	
	215 Jun 03 j 00:21	0°♏		asc. node	220 Dec 19 j 16:11	25°♋28'08	
morning rise	215 Jun 19 j 06:24	10°♏50'52			220 Dec 27 j 09:10	0°♍	
	215 Jul 18 j 14:28	0°☾			221 Feb 14 j 12:08	0°♎	
	215 Sep 04 j 04:01	0°♈			221 Apr 03 j 14:47	0°♏	
	215 Oct 24 j 04:10	0°♍			221 May 21 j 15:40	0°☾	
	215 Dec 18 j 22:42	0°♊			221 Jul 08 j 09:34	0°♈	
retrograde	216 Feb 27 j 12:17	20°♊57'04		evening set	221 Jul 09 j 15:27	0°♈47'18	
opposition	216 Apr 03 j 15:42	13°♊16'08	2°01'14	max. Earth dist.	221 Aug 10 j 17:51	21°♈15'51	2.65486 AU
greatest brilliancy	216 Apr 04 j 13:16	12°♊56'26	-1.8m				
min. Earth dist.	216 Apr 11 j 09:48	10°♊26'36	0.54556 AU	conjunction	221 Aug 24 j 09:28	0°♍04'51	1°03'22
direct	216 May 13 j 08:21	3°♊57'15		minimum elong	221 Aug 24 j 10:21	0°♍06'16	1°03'22
desc. node	216 May 17 j 07:13	4°♊03'31			221 Aug 24 j 06:29	0°♍	
	216 Jul 25 j 22:16	0°♌		morning rise	221 Oct 08 j 10:18	29°♍46'18	
	216 Sep 09 j 22:47	0°♌			221 Oct 08 j 18:29	0°♊	
	216 Oct 20 j 19:37	0°☾			221 Nov 21 j 16:46	0°♌	
	216 Nov 29 j 02:16	0°≈			222 Jan 03 j 03:02	0°♌	
	217 Jan 07 j 10:39	0°♋		desc. node	222 Jan 07 j 05:09	2°♌56'26	
	217 Feb 16 j 21:52	0°♍			222 Feb 13 j 08:26	0°☾	
asc. node	217 Mar 16 j 18:43	19°♍58'00			222 Mar 25 j 21:44	0°≈	
	217 Mar 31 j 02:27	0°♎			222 May 05 j 19:51	0°♋	
evening set	217 Apr 19 j 14:28	13°♎25'16			222 Jun 18 j 09:48	0°♍	
	217 May 14 j 04:57	0°♏			222 Aug 14 j 04:48	0°♎	
				retrograde	222 Sep 12 j 23:47	5°♎43'06	
conjunction	217 Jun 10 j 13:20	18°♏02'09	0°46'10		222 Oct 11 j 15:21	30°♎♍	
minimum elong	217 Jun 10 j 11:53	17°♏59'47	0°46'10	min. Earth dist.	222 Oct 12 j 17:31	29°♍36'37	0.50157 AU
max. Earth dist.	217 Jun 25 j 08:07	27°♏38'38	2.63899 AU	opposition	222 Oct 20 j 13:17	26°♍42'54	0°-52'-17
	217 Jun 28 j 23:36	0°☾		greatest brilliancy	222 Oct 20 j 04:10	26°♍51'22	-2.1m

asc. node	222 Nov 06 j 15:06	21° Υ 20'02		minimum elong	228 Jan 23 j 08:01	2° \approx 52'18	1°05'10
direct	222 Nov 23 j 17:15	19° Υ 21'09		max. Earth dist.	228 Feb 20 j 23:40	25° \approx 22'41	2.37560 AU
	223 Jan 08 j 10:05	0° B			228 Feb 26 j 22:07	0° H	
	223 Mar 10 j 02:28	0° II		morning rise	228 Apr 02 j 07:22	27° H 05'09	
	223 May 01 j 03:26	0° S			228 Apr 06 j 04:33	0° Υ	
	223 Jun 19 j 13:36	0° Q			228 May 17 j 05:47	0° B	
	223 Aug 05 j 23:29	0° M		asc. node	228 Jun 28 j 12:40	29° B 13'25	
evening set	223 Aug 16 j 09:28	6° M 46'26			228 Jun 29 j 16:30	0° II	
max. Earth dist.	223 Sep 06 j 04:23	20° M 30'40	2.58327 AU		228 Aug 15 j 05:44	0° S	
	223 Sep 20 j 06:32	0° A			228 Oct 05 j 23:07	0° Q	
				retrograde	228 Dec 31 j 13:26	29° Q 28'19	
conjunction	223 Oct 02 j 14:50	8° A 25'59	0°31'35	opposition	229 Feb 08 j 21:21	20° Q 14'39	4°30'23
minimum elong	223 Oct 02 j 15:57	8° A 27'56	0°31'34	greatest brilliancy	229 Feb 09 j 10:39	20° Q 01'32	-1.3m
	223 Nov 02 j 10:25	0° M		min. Earth dist.	229 Feb 11 j 19:14	19° Q 05'44	0.66353 AU
morning rise	223 Nov 20 j 18:38	13° M 11'06		direct	229 Mar 22 j 04:55	10° Q 13'20	
desc. node	223 Nov 25 j 04:20	16° M 23'16			229 May 28 j 01:23	0° M	
	223 Dec 13 j 16:29	0° A		desc. node	229 Jul 17 j 00:41	28° M 12'25	
	224 Jan 22 j 11:49	0° B			229 Jul 19 j 21:15	0° A	
	224 Mar 01 j 11:41	0° \approx			229 Sep 02 j 16:06	0° M	
	224 Apr 09 j 11:53	0° H			229 Oct 13 j 15:53	0° A	
	224 May 19 j 14:28	0° Υ			229 Nov 21 j 14:04	0° B	
	224 Jul 01 j 10:07	0° B			229 Dec 29 j 16:28	0° \approx	
	224 Aug 20 j 00:13	0° II		evening set	230 Jan 27 j 18:34	22° \approx 49'09	
asc. node	224 Sep 23 j 13:23	15° II 08'34			230 Feb 06 j 00:30	0° H	
retrograde	224 Oct 23 j 07:41	20° II 25'20			230 Mar 17 j 11:38	0° Υ	
min. Earth dist.	224 Nov 27 j 07:31	12° II 22'55	0.61469 AU				
greatest brilliancy	224 Dec 01 j 08:46	10° II 45'53	-1.5m	conjunction	230 Apr 02 j 16:13	11° Υ 57'05	0°-26'-51
opposition	224 Dec 02 j 01:44	10° II 28'56	2°44'51	minimum elong	230 Apr 02 j 18:05	12° Υ 00'30	0°26'50
direct	225 Jan 08 j 23:04	1° II 37'19			230 Apr 27 j 17:36	0° B	
	225 Apr 04 j 17:55	0° S		max. Earth dist.	230 May 15 j 00:12	12° B 07'41	2.50280 AU
	225 May 28 j 22:48	0° Q		asc. node	230 May 16 j 10:51	13° B 07'49	
	225 Jul 16 j 22:51	0° M		morning rise	230 Jun 01 j 00:44	23° B 50'15	
	225 Aug 31 j 14:57	0° A			230 Jun 10 j 03:05	0° II	
evening set	225 Sep 26 j 15:20	17° A 58'31			230 Jul 25 j 18:50	0° S	
max. Earth dist.	225 Oct 11 j 13:28	28° A 34'33	2.46741 AU		230 Sep 11 j 21:20	0° Q	
desc. node	225 Oct 12 j 02:41	28° A 58'17			230 Nov 02 j 19:06	0° M	
	225 Oct 13 j 13:02	0° M			231 Jan 08 j 12:10	0° A	
				retrograde	231 Feb 09 j 05:40	5° A 15'24	
conjunction	225 Nov 18 j 16:47	26° M 35'26	0°-23'-40		231 Mar 10 j 07:59	30° R M	
minimum elong	225 Nov 18 j 15:26	26° M 32'55	0°23'40	opposition	231 Mar 18 j 13:57	27° M 01'00	3°08'47
	225 Nov 23 j 05:31	0° A		greatest brilliancy	231 Mar 19 j 15:30	26° M 36'51	-1.6m
	226 Jan 01 j 08:26	0° B		min. Earth dist.	231 Mar 25 j 04:00	24° M 31'53	0.59029 AU
morning rise	226 Jan 17 j 22:55	12° B 57'24		direct	231 Apr 28 j 05:43	17° M 16'19	
	226 Feb 08 j 16:31	0° \approx		desc. node	231 Jun 03 j 23:10	24° M 46'54	
greatest brilliancy	226 Mar 06 j 19:39	20° \approx 27'30	1.2m		231 Jun 16 j 15:06	0° A	
	226 Mar 19 j 02:17	0° H			231 Aug 08 j 21:09	0° M	
	226 Apr 27 j 11:31	0° Υ			231 Sep 21 j 03:04	0° A	
	226 Jun 07 j 18:53	0° B			231 Oct 31 j 00:08	0° B	
	226 Jul 22 j 05:14	0° II			231 Dec 08 j 17:08	0° \approx	
asc. node	226 Aug 11 j 13:03	12° II 43'56			232 Jan 16 j 14:28	0° H	
	226 Sep 10 j 14:07	0° S			232 Feb 25 j 15:29	0° Υ	
retrograde	226 Nov 27 j 14:49	26° S 07'04		evening set	232 Mar 30 j 15:32	24° Υ 30'11	
opposition	227 Jan 06 j 17:22	16° S 18'45	4°20'07	asc. node	232 Apr 02 j 10:17	26° Υ 27'59	
greatest brilliancy	227 Jan 06 j 11:07	16° S 25'02	-1.2m		232 Apr 07 j 10:56	0° B	
min. Earth dist.	227 Jan 05 j 18:09	16° S 42'04	0.67166 AU		232 May 21 j 06:13	0° II	
direct	227 Feb 15 j 23:59	6° S 38'20					
	227 May 02 j 19:04	0° Q		conjunction	232 May 24 j 13:44	2° II 12'59	0°30'12
	227 Jun 25 j 21:55	0° M		minimum elong	232 May 24 j 12:26	2° II 10'48	0°30'11
	227 Aug 12 j 01:11	0° A		max. Earth dist.	232 Jun 15 j 04:40	16° II 31'37	2.61058 AU
desc. node	227 Aug 30 j 01:25	12° A 13'28			232 Jul 05 j 21:26	0° S	
	227 Sep 24 j 06:50	0° M		morning rise	232 Jul 13 j 14:33	4° S 58'20	
	227 Nov 03 j 19:44	0° A			232 Aug 21 j 23:28	0° Q	
evening set	227 Nov 19 j 22:48	12° A 20'34			232 Oct 09 j 07:10	0° M	
	227 Dec 12 j 15:26	0° B			232 Nov 28 j 11:41	0° A	
	228 Jan 19 j 16:45	0° \approx			233 Jan 23 j 03:53	0° M	
				retrograde	233 Apr 01 j 18:55	20° M 21'24	
conjunction	228 Jan 23 j 08:18	2° \approx 52'51	-1°-5'-9	desc. node	233 Apr 20 j 21:58	18° M 05'39	

opposition	233 May 05 j 12:37	13° \mathbb{M} 48'51	0°-48'-31		238 Aug 12 j 20:35	0° \mathbb{M}	
greatest brilliancy	233 May 05 j 22:15	13° \mathbb{M} 40'52	-2.3m	max. Earth dist.	238 Aug 26 j 08:13	8° \mathbb{M} 47'35	2.61729 AU
min. Earth dist.	233 May 13 j 23:24	11° \mathbb{M} 01'38	0.46549 AU				
direct	233 Jun 11 j 10:48	5° \mathbb{M} 49'11		conjunction	238 Sep 16 j 18:19	22° \mathbb{M} 59'09	0°47'04
	233 Aug 18 j 12:44	0° \mathbb{J}		minimum elong	238 Sep 16 j 19:35	23° \mathbb{M} 01'16	0°47'03
	233 Oct 03 j 03:45	0° \mathbb{Z}			238 Sep 27 j 04:31	0° \mathbb{L}	
	233 Nov 13 j 11:23	0° \approx		morning rise	238 Nov 02 j 16:32	25° \mathbb{L} 08'27	
	233 Dec 24 j 03:23	0° \mathbb{H}			238 Nov 09 j 14:14	0° \mathbb{M}	
	234 Feb 03 j 14:59	0° \mathbb{Y}		desc. node	238 Dec 11 j 20:03	23° \mathbb{M} 07'52	
asc. node	234 Feb 18 j 09:31	10° \mathbb{Y} 26'17			238 Dec 21 j 05:30	0° \mathbb{J}	
	234 Mar 18 j 15:10	0° \mathbb{B}			239 Jan 30 j 11:28	0° \mathbb{Z}	
	234 May 02 j 08:14	0° \mathbb{II}			239 Mar 10 j 22:15	0° \approx	
evening set	234 May 17 j 07:49	9° \mathbb{II} 49'45			239 Apr 19 j 09:52	0° \mathbb{H}	
	234 Jun 17 j 11:22	0° \mathbb{L}			239 May 30 j 05:05	0° \mathbb{Y}	
					239 Jul 13 j 18:00	0° \mathbb{B}	
conjunction	234 Jul 04 j 23:23	11° \mathbb{L} 13'07	1°02'56		239 Sep 11 j 15:55	0° \mathbb{II}	
minimum elong	234 Jul 04 j 22:24	11° \mathbb{L} 11'33	1°02'56	retrograde	239 Oct 09 j 08:17	4° \mathbb{II} 46'10	
max. Earth dist.	234 Jul 10 j 09:47	14° \mathbb{L} 41'28	2.66700 AU	asc. node	239 Oct 11 j 06:34	4° \mathbb{II} 44'34	
	234 Aug 03 j 10:17	0° \mathbb{Q}			239 Nov 04 j 09:16	30° \mathbb{R} \mathbb{B}	
morning rise	234 Aug 19 j 14:13	10° \mathbb{Q} 17'03		min. Earth dist.	239 Nov 11 j 09:33	27° \mathbb{B} 24'55	0.57566 AU
	234 Sep 19 j 13:41	0° \mathbb{M}		opposition	239 Nov 17 j 12:59	25° \mathbb{B} 00'04	1°38'24
	234 Nov 05 j 13:07	0° \mathbb{L}		greatest brilliancy	239 Nov 16 j 23:05	25° \mathbb{B} 13'45	-1.7m
	234 Dec 22 j 11:02	0° \mathbb{M}		direct	239 Dec 24 j 02:45	16° \mathbb{B} 37'36	
	235 Feb 07 j 23:50	0° \mathbb{J}			240 Feb 15 j 11:03	0° \mathbb{II}	
desc. node	235 Mar 08 j 22:22	17° \mathbb{J} 37'07			240 Apr 15 j 08:45	0° \mathbb{L}	
	235 Mar 30 j 10:03	0° \mathbb{Z}			240 Jun 06 j 00:18	0° \mathbb{Q}	
retrograde	235 Jun 17 j 10:41	28° \mathbb{Z} 04'13			240 Jul 24 j 05:21	0° \mathbb{M}	
opposition	235 Jul 17 j 14:16	23° \mathbb{Z} 04'39	-6°-44'-29		240 Sep 07 j 16:30	0° \mathbb{L}	
greatest brilliancy	235 Jul 17 j 16:45	23° \mathbb{Z} 03'01	-2.9m	evening set	240 Sep 09 j 06:50	1° \mathbb{L} 05'09	
min. Earth dist.	235 Jul 17 j 19:26	23° \mathbb{Z} 01'15	0.37436 AU	max. Earth dist.	240 Sep 25 j 04:22	12° \mathbb{L} 00'52	2.51667 AU
direct	235 Aug 16 j 11:05	18° \mathbb{Z} 05'38			240 Oct 20 j 15:56	0° \mathbb{M}	
	235 Oct 01 j 07:01	0° \approx		desc. node	240 Oct 28 j 18:50	5° \mathbb{M} 51'06	
	235 Nov 23 j 22:44	0° \mathbb{H}					
asc. node	236 Jan 06 j 07:13	27° \mathbb{H} 44'50		conjunction	240 Oct 29 j 09:05	6° \mathbb{M} 16'53	0°00'-22
	236 Jan 09 j 18:20	0° \mathbb{Y}		minimum elong	240 Oct 29 j 09:02	6° \mathbb{M} 16'47	0°00'22
	236 Feb 24 j 21:16	0° \mathbb{B}		behind sun begin	240 Oct 28 j 11:12	5° \mathbb{M} 37'15	
	236 Apr 11 j 13:17	0° \mathbb{II}		behind sun end	240 Oct 30 j 06:53	6° \mathbb{M} 56'22	
	236 May 28 j 20:04	0° \mathbb{L}			240 Nov 30 j 12:47	0° \mathbb{J}	
evening set	236 Jun 25 j 02:19	17° \mathbb{L} 14'05		morning rise	240 Dec 23 j 06:31	17° \mathbb{J} 13'49	
	236 Jul 15 j 05:42	0° \mathbb{Q}			241 Jan 08 j 20:57	0° \mathbb{Z}	
max. Earth dist.	236 Aug 01 j 14:01	11° \mathbb{Q} 02'53	2.66888 AU		241 Feb 16 j 09:55	0° \approx	
					241 Mar 26 j 23:40	0° \mathbb{H}	
conjunction	236 Aug 10 j 02:07	16° \mathbb{Q} 29'15	1°08'25		241 May 05 j 12:50	0° \mathbb{Y}	
minimum elong	236 Aug 10 j 02:32	16° \mathbb{Q} 29'54	1°08'25		241 Jun 16 j 04:01	0° \mathbb{B}	
	236 Aug 31 j 01:48	0° \mathbb{M}			241 Jul 31 j 14:17	0° \mathbb{II}	
morning rise	236 Sep 23 j 15:38	15° \mathbb{M} 21'20		asc. node	241 Aug 28 j 05:17	16° \mathbb{II} 13'29	
	236 Oct 15 j 19:59	0° \mathbb{L}			241 Sep 24 j 17:24	0° \mathbb{L}	
	236 Nov 29 j 07:06	0° \mathbb{M}		retrograde	241 Nov 14 j 04:49	12° \mathbb{L} 57'49	
	237 Jan 11 j 12:35	0° \mathbb{J}		min. Earth dist.	241 Dec 21 j 20:03	4° \mathbb{L} 02'13	0.65685 AU
desc. node	237 Jan 23 j 21:30	8° \mathbb{J} 43'25		opposition	241 Dec 24 j 07:39	3° \mathbb{L} 02'19	3°54'20
	237 Feb 22 j 18:53	0° \mathbb{Z}		greatest brilliancy	241 Dec 23 j 19:12	3° \mathbb{L} 14'49	-1.3m
	237 Apr 05 j 16:28	0° \approx			242 Jan 01 j 02:12	30° \mathbb{R} \mathbb{II}	
	237 May 18 j 18:33	0° \mathbb{H}		direct	242 Feb 01 j 19:32	23° \mathbb{II} 37'35	
	237 Jul 07 j 20:42	0° \mathbb{Y}			242 Mar 09 j 03:56	0° \mathbb{L}	
retrograde	237 Aug 24 j 05:49	13° \mathbb{Y} 24'47			242 May 13 j 21:04	0° \mathbb{Q}	
min. Earth dist.	237 Sep 20 j 21:02	8° \mathbb{Y} 11'13	0.44958 AU		242 Jul 04 j 04:40	0° \mathbb{M}	
opposition	237 Sep 28 j 23:58	5° \mathbb{Y} 24'46	-3°00'-47		242 Aug 19 j 14:08	0° \mathbb{L}	
greatest brilliancy	237 Sep 27 j 19:37	5° \mathbb{Y} 49'08	-2.4m	desc. node	242 Sep 15 j 17:48	18° \mathbb{L} 41'11	
	237 Oct 18 j 15:23	30° \mathbb{R} \mathbb{H}			242 Oct 01 j 15:28	0° \mathbb{M}	
direct	237 Oct 31 j 08:24	28° \mathbb{H} 54'54		evening set	242 Oct 27 j 17:39	19° \mathbb{M} 07'14	
	237 Nov 13 j 10:18	0° \mathbb{Y}			242 Nov 11 j 05:03	0° \mathbb{J}	
asc. node	237 Nov 23 j 06:27	2° \mathbb{Y} 04'31		max. Earth dist.	242 Nov 22 j 16:08	8° \mathbb{J} 44'08	2.39141 AU
	238 Jan 26 j 12:32	0° \mathbb{B}			242 Dec 20 j 02:48	0° \mathbb{Z}	
	238 Mar 20 j 04:25	0° \mathbb{II}					
	238 May 09 j 03:00	0° \mathbb{L}		conjunction	242 Dec 26 j 10:37	4° \mathbb{Z} 57'12	0°-56'-16
	238 Jun 26 j 17:28	0° \mathbb{Q}		minimum elong	242 Dec 26 j 08:12	4° \mathbb{Z} 52'28	0°56'15
evening set	238 Aug 01 j 12:19	22° \mathbb{Q} 40'50			243 Jan 27 j 05:52	0° \approx	

morning rise	243 Mar 05 j 01:49	28° \approx 53'50		opposition	248 Apr 14 j 07:33	23° $\underline{\Delta}$ 48'49	1°09'17
	243 Mar 06 j 11:51	0° H		greatest brilliancy	248 Apr 14 j 21:43	23° $\underline{\Delta}$ 36'13	-2.0m
	243 Apr 14 j 17:51	0° Y		min. Earth dist.	248 Apr 22 j 13:13	20° $\underline{\Delta}$ 53'47	0.51821 AU
	243 May 25 j 19:15	0° B		desc. node	248 May 07 j 14:58	16° $\underline{\Delta}$ 32'38	
	243 Jul 08 j 10:29	0° II		direct	248 May 23 j 05:43	14° $\underline{\Delta}$ 51'41	
asc. node	243 Jul 16 j 03:56	5° II 05'20			248 Jul 14 j 23:10	0° M	
	243 Aug 24 j 19:51	0° S			248 Sep 02 j 17:55	0° Z	
	243 Oct 19 j 08:35	0° Ω			248 Oct 14 j 15:06	0° Z	
retrograde	243 Dec 18 j 17:25	16° Ω 39'43			248 Nov 23 j 09:42	0° \approx	
opposition	244 Jan 27 j 11:42	7° Ω 09'56	4°35'53		249 Jan 02 j 02:04	0° H	
greatest brilliancy	244 Jan 27 j 17:13	7° Ω 04'27	-1.2m		249 Feb 11 j 19:24	0° Y	
min. Earth dist.	244 Jan 28 j 21:03	6° Ω 36'44	0.67459 AU	asc. node	249 Mar 07 j 00:37	16° Y 35'19	
	244 Feb 16 j 20:07	30° R S			249 Mar 26 j 05:06	0° B	
direct	244 Mar 08 j 13:34	27° S 13'31		evening set	249 Apr 30 j 03:20	23° B 46'23	
	244 Mar 30 j 23:24	0° Ω			249 May 09 j 11:18	0° II	
	244 Jun 09 j 04:29	0° M					
	244 Jul 28 j 17:59	0° $\underline{\Delta}$		conjunction	249 Jun 19 j 17:39	27° II 01'41	0°53'33
desc. node	244 Aug 02 j 16:24	3° $\underline{\Delta}$ 13'36		minimum elong	249 Jun 19 j 16:18	26° II 59'30	0°53'33
	244 Sep 10 j 17:01	0° M			249 Jun 24 j 08:04	0° S	
	244 Oct 21 j 10:42	0° Z		max. Earth dist.	249 Jun 30 j 23:45	4° S 17'14	2.65137 AU
	244 Nov 29 j 06:49	0° Z		morning rise	249 Aug 05 j 14:51	27° S 03'12	
evening set	244 Dec 30 j 16:12	24° Z 44'36			249 Aug 10 j 06:13	0° Ω	
	245 Jan 06 j 07:55	0° \approx			249 Sep 26 j 17:10	0° M	
	245 Feb 13 j 13:59	0° H			249 Nov 13 j 13:32	0° $\underline{\Delta}$	
					250 Jan 01 j 09:30	0° M	
conjunction	245 Mar 07 j 23:55	17° H 13'53	0°-49'-17		250 Feb 22 j 14:26	0° Z	
minimum elong	245 Mar 08 j 02:53	17° H 19'33	0°49'17	desc. node	250 Mar 25 j 13:31	15° Z 12'54	
	245 Mar 24 j 22:04	0° Y		retrograde	250 May 15 j 22:22	28° Z 19'14	
max. Earth dist.	245 Apr 26 j 11:23	23° Y 52'51	2.44993 AU	opposition	250 Jun 15 j 19:28	23° Z 03'33	-4°-51'-49
	245 May 05 j 00:42	0° B		greatest brilliancy	250 Jun 16 j 23:02	22° Z 44'00	-2.7m
morning rise	245 May 11 j 08:44	4° B 29'23		min. Earth dist.	250 Jun 21 j 00:10	21° Z 35'26	0.39469 AU
asc. node	245 Jun 02 j 03:35	19° B 39'29		direct	250 Jul 18 j 05:38	17° Z 08'00	
	245 Jun 17 j 08:26	0° II			250 Sep 03 j 00:57	0° Z	
	245 Aug 02 j 04:23	0° S			250 Oct 24 j 01:41	0° \approx	
	245 Sep 20 j 03:24	0° Ω			250 Dec 07 j 09:45	0° H	
	245 Nov 14 j 11:13	0° M			251 Jan 20 j 00:48	0° Y	
retrograde	246 Jan 23 j 19:31	20° M 52'31		asc. node	251 Jan 23 j 00:05	2° Y 01'43	
opposition	246 Mar 03 j 02:39	12° M 11'03	3°53'45		251 Mar 05 j 11:27	0° B	
greatest brilliancy	246 Mar 04 j 01:44	11° M 48'45	-1.4m		251 Apr 20 j 03:39	0° II	
min. Earth dist.	246 Mar 08 j 07:40	10° M 10'24	0.62653 AU		251 Jun 05 j 20:53	0° S	
direct	246 Apr 13 j 06:55	2° M 13'19		evening set	251 Jun 11 j 04:30	3° S 23'22	
desc. node	246 Jun 20 j 16:08	23° M 39'31			251 Jul 23 j 00:36	0° Ω	
	246 Jul 02 j 08:43	0° $\underline{\Delta}$		max. Earth dist.	251 Jul 24 j 17:55	1° Ω 05'45	2.67459 AU
	246 Aug 19 j 04:47	0° M					
	246 Sep 30 j 03:52	0° Z		conjunction	251 Jul 27 j 21:03	3° Ω 05'21	1°09'29
	246 Nov 08 j 12:00	0° Z		minimum elong	251 Jul 27 j 20:55	3° Ω 05'07	1°09'29
	246 Dec 16 j 20:49	0° \approx			251 Sep 07 j 21:55	0° M	
	247 Jan 24 j 10:59	0° H		morning rise	251 Sep 10 j 11:50	1° M 39'47	
	247 Mar 05 j 04:46	0° Y			251 Oct 24 j 00:46	0° $\underline{\Delta}$	
evening set	247 Mar 09 j 06:28	3° Y 00'13			251 Dec 08 j 04:50	0° M	
	247 Apr 15 j 17:23	0° B			252 Jan 21 j 13:07	0° Z	
asc. node	247 Apr 20 j 01:42	3° B 03'29		desc. node	252 Feb 10 j 13:13	13° Z 39'34	
					252 Mar 05 j 10:34	0° Z	
conjunction	247 May 06 j 21:12	14° B 44'43	0°10'15		252 Apr 18 j 22:59	0° \approx	
minimum elong	247 May 06 j 20:38	14° B 43'45	0°10'14		252 Jun 07 j 11:48	0° H	
behind sun begin	247 May 06 j 02:43	14° B 12'54		retrograde	252 Jul 31 j 22:01	16° H 51'58	
behind sun end	247 May 07 j 14:33	15° B 14'34		min. Earth dist.	252 Aug 27 j 12:22	12° H 18'31	0.40410 AU
	247 May 29 j 07:12	0° II		greatest brilliancy	252 Sep 01 j 18:30	10° H 42'40	-2.7m
max. Earth dist.	247 Jun 05 j 03:56	4° II 36'02	2.57412 AU	opposition	252 Sep 03 j 06:35	10° H 15'06	-5°-19'-44
morning rise	247 Jun 28 j 20:37	20° II 15'25		direct	252 Oct 03 j 17:36	4° H 41'06	
	247 Jul 13 j 20:37	0° S		asc. node	252 Dec 09 j 23:01	26° H 02'46	
	247 Aug 30 j 04:16	0° Ω			252 Dec 17 j 13:00	0° Y	
	247 Oct 18 j 09:51	0° M			253 Feb 07 j 20:23	0° B	
	247 Dec 10 j 09:46	0° $\underline{\Delta}$			253 Mar 29 j 03:06	0° II	
	248 Feb 24 j 22:24	0° M			253 May 16 j 17:19	0° S	
retrograde	248 Mar 09 j 21:58	1° M 08'12			253 Jul 03 j 17:29	0° Ω	
	248 Mar 23 j 07:49	30° R $\underline{\Delta}$		evening set	253 Jul 17 j 23:02	9° Ω 00'26	

max. Earth dist.	253 Aug 16 j 08:17	27°♂50'19	2.64369 AU		258 Sep 03 j 11:05	0°♄	
	253 Aug 19 j 16:21	0°♍			258 Nov 08 j 19:03	0°♂	
				retrograde	258 Dec 05 j 06:31	3°♂56'07	
conjunction	253 Sep 01 j 18:13	8°♍31'15	0°58'32		258 Dec 29 j 16:47	30°♋♄	
minimum elong	253 Sep 01 j 19:18	8°♍33'02	0°58'32	opposition	259 Jan 14 j 07:19	24°♄13'27	4°29'19
	253 Oct 04 j 03:04	0°♊		greatest brilliancy	259 Jan 14 j 05:02	24°♄15'45	-1.2m
morning rise	253 Oct 17 j 06:42	8°♊53'54		min. Earth dist.	259 Jan 14 j 03:57	24°♄16'49	0.67561 AU
	253 Nov 16 j 20:51	0°♌		direct	259 Feb 23 j 22:19	14°♄26'21	
desc. node	253 Dec 28 j 12:19	29°♌38'40			259 Apr 23 j 22:18	0°♂	
	253 Dec 29 j 00:06	0°♌			259 Jun 20 j 01:52	0°♍	
	254 Feb 07 j 20:08	0°♌			259 Aug 06 j 22:50	0°♊	
	254 Mar 19 j 22:05	0°♋		desc. node	259 Aug 20 j 09:35	9°♊01'14	
	254 Apr 29 j 03:48	0°♋			259 Sep 19 j 10:25	0°♌	
	254 Jun 10 j 06:31	0°♍			259 Oct 30 j 01:14	0°♌	
	254 Jul 29 j 02:48	0°♌		evening set	259 Dec 04 j 06:39	27°♌11'02	
retrograde	254 Sep 23 j 01:49	17°♌15'37			259 Dec 07 j 20:55	0°♌	
min. Earth dist.	254 Oct 24 j 00:51	10°♌41'01	0.52938 AU		260 Jan 14 j 21:41	0°♋	
asc. node	254 Oct 27 j 21:39	9°♌13'05					
opposition	254 Oct 31 j 08:53	7°♌53'23	0°10'06	conjunction	260 Feb 08 j 16:32	19°♋31'29	-1°3'-25
greatest brilliancy	255 Feb 14 j 02:26	21°♌42'00	-3.0m	minimum elong	260 Feb 08 j 18:03	19°♋34'28	1°03'25
direct	254 Dec 05 j 10:19	0°♌07'33			260 Feb 22 j 02:33	0°♋	
	255 Mar 02 j 14:04	0°♌		max. Earth dist.	260 Mar 28 j 01:47	26°♋47'09	2.39735 AU
	255 Apr 25 j 12:47	0°♄			260 Apr 01 j 08:28	0°♍	
	255 Jun 14 j 14:57	0°♂		morning rise	260 Apr 17 j 12:00	11°♍59'23	
	255 Aug 01 j 07:04	0°♍			260 May 12 j 08:54	0°♌	
evening set	255 Aug 25 j 05:05	15°♍37'36		asc. node	260 Jun 18 j 18:05	25°♌59'05	
max. Earth dist.	255 Sep 13 j 00:07	28°♍12'11	2.56118 AU		260 Jun 24 j 16:53	0°♌	
	255 Sep 15 j 15:45	0°♊			260 Aug 09 j 21:05	0°♄	
					260 Sep 29 j 05:42	0°♂	
conjunction	255 Oct 12 j 06:11	18°♊20'11	0°20'49		260 Dec 01 j 13:15	0°♍	
minimum elong	255 Oct 12 j 07:02	18°♊21'40	0°20'48	retrograde	261 Jan 08 j 18:46	7°♍25'15	
	255 Oct 28 j 18:13	0°♌			261 Feb 12 j 13:54	30°♋♂	
desc. node	255 Nov 15 j 10:30	12°♌44'14		opposition	261 Feb 16 j 19:09	28°♂21'55	4°20'58
morning rise	255 Dec 02 j 02:43	24°♌58'23		greatest brilliancy	261 Feb 17 j 12:21	28°♂05'03	-1.3m
	255 Dec 08 j 21:15	0°♌		min. Earth dist.	261 Feb 20 j 12:41	26°♂54'12	0.65317 AU
	256 Jan 17 j 12:36	0°♌		direct	261 Mar 30 j 03:26	18°♂20'17	
	256 Feb 25 j 08:20	0°♋			261 May 17 j 18:55	0°♍	
	256 Apr 04 j 04:08	0°♋		desc. node	261 Jul 07 j 08:00	26°♍12'13	
	256 May 14 j 00:07	0°♍			261 Jul 13 j 14:50	0°♊	
	256 Jun 25 j 05:16	0°♌			261 Aug 28 j 05:57	0°♌	
	256 Aug 11 j 13:40	0°♌			261 Oct 08 j 13:10	0°♌	
asc. node	256 Sep 13 j 21:25	17°♌08'26			261 Nov 16 j 14:32	0°♌	
retrograde	256 Oct 31 j 10:32	29°♌10'11			261 Dec 24 j 18:45	0°♋	
min. Earth dist.	256 Dec 06 j 10:11	20°♌47'51	0.63227 AU		262 Feb 01 j 04:14	0°♋	
opposition	256 Dec 10 j 09:35	19°♌12'16	3°14'57	evening set	262 Feb 12 j 00:14	8°♋20'12	
greatest brilliancy	256 Dec 09 j 17:09	19°♌28'44	-1.4m		262 Mar 12 j 16:35	0°♍	
direct	257 Jan 17 j 22:13	10°♌07'33					
	257 Mar 27 j 12:47	0°♄		conjunction	262 Apr 15 j 19:41	24°♍54'08	0°-12'-59
	257 May 23 j 06:27	0°♂		minimum elong	262 Apr 15 j 20:34	24°♍55'41	0°12'59
	257 Jul 11 j 23:24	0°♍		behind sun begin	262 Apr 15 j 05:57	24°♍29'35	
	257 Aug 26 j 21:32	0°♊		behind sun end	262 Apr 16 j 11:10	25°♍21'46	
desc. node	257 Oct 02 j 10:01	25°♊22'41			262 Apr 22 j 23:34	0°♌	
evening set	257 Oct 07 j 06:40	28°♊51'20		asc. node	262 May 06 j 18:05	9°♌41'02	
	257 Oct 08 j 20:54	0°♌		max. Earth dist.	262 May 23 j 13:43	21°♌17'59	2.52978 AU
max. Earth dist.	257 Oct 23 j 04:07	10°♌23'03	2.43890 AU		262 Jun 05 j 09:08	0°♌	
	257 Nov 18 j 12:31	0°♌		morning rise	262 Jun 11 j 16:15	4°♌13'56	
					262 Jul 20 j 22:26	0°♄	
conjunction	257 Dec 01 j 11:24	9°♌50'55	0°-36'-52		262 Sep 06 j 15:35	0°♂	
minimum elong	257 Dec 01 j 09:19	9°♌46'54	0°36'51		262 Oct 27 j 07:00	0°♍	
	257 Dec 27 j 13:27	0°♌			262 Dec 24 j 22:08	0°♊	
morning rise	258 Feb 03 j 02:06	29°♌25'57		retrograde	263 Feb 19 j 08:05	14°♊27'43	
	258 Feb 03 j 19:25	0°♋		opposition	263 Mar 28 j 01:32	6°♊30'46	2°32'45
	258 Mar 14 j 03:23	0°♋		greatest brilliancy	263 Mar 29 j 01:40	6°♊08'20	-1.7m
	258 Apr 22 j 10:32	0°♍		min. Earth dist.	263 Apr 04 j 08:12	3°♊48'57	0.56657 AU
	258 Jun 02 j 14:16	0°♌			263 Apr 16 j 01:05	30°♋♍	
	258 Jul 16 j 14:36	0°♌		direct	263 May 07 j 06:14	26°♍58'31	
asc. node	258 Aug 01 j 19:53	10°♌24'21		desc. node	263 May 25 j 06:31	28°♍59'04	

	263 May 29 j 13:29	0°♄		conjunction	268 Aug 18 j 06:10	24°♌40'49	1°05'57
	263 Aug 01 j 07:42	0°♍		minimum elong	268 Aug 18 j 06:51	24°♌41'55	1°05'58
	263 Sep 14 j 23:05	0°♎			268 Aug 26 j 11:43	0°♏	
	263 Oct 25 j 08:37	0°♏		morning rise	268 Oct 02 j 00:20	23°♏56'07	
	263 Dec 03 j 08:29	0°♐			268 Oct 11 j 03:03	0°♑	
	264 Jan 11 j 11:03	0°♑			268 Nov 24 j 07:21	0°♒	
	264 Feb 20 j 16:21	0°♒			269 Jan 06 j 02:14	0°♓	
asc. node	264 Mar 23 j 17:31	23°♑02'09		desc. node	269 Jan 14 j 04:32	5°♓46'35	
	264 Apr 02 j 15:30	0°♓			269 Feb 16 j 17:55	0°♑	
evening set	264 Apr 11 j 05:57	5°♓58'56			269 Mar 29 j 19:32	0°♒	
	264 May 16 j 13:22	0°♑			269 May 10 j 10:53	0°♑	
					269 Jun 24 j 17:22	0°♒	
conjunction	264 Jun 03 j 10:48	11°♑52'36	0°39'57	retrograde	269 Sep 04 j 19:16	26°♑56'49	
minimum elong	264 Jun 03 j 09:21	11°♑50'13	0°39'55	min. Earth dist.	269 Oct 03 j 14:11	21°♑13'38	0.47829 AU
max. Earth dist.	264 Jun 21 j 04:42	23°♑29'49	2.62726 AU	opposition	269 Oct 11 j 15:39	18°♑19'52	-1°-44'-25
	264 Jul 01 j 05:24	0°♑		greatest brilliancy	269 Oct 10 j 21:53	18°♑35'54	-2.2m
morning rise	264 Jul 22 j 04:31	13°♑28'28		asc. node	269 Nov 13 j 14:02	11°♑20'08	
	264 Aug 17 j 04:45	0°♑		direct	269 Nov 14 j 00:16	11°♑20'04	
	264 Oct 04 j 03:08	0°♏			270 Jan 16 j 13:54	0°♓	
	264 Nov 22 j 06:21	0°♑			270 Mar 13 j 20:09	0°♑	
	265 Jan 13 j 10:53	0°♒			270 May 03 j 21:01	0°♑	
	265 Mar 23 j 21:49	0°♓			270 Jun 21 j 22:26	0°♑	
desc. node	265 Apr 11 j 05:48	2°♓56'37			270 Aug 08 j 06:03	0°♏	
retrograde	265 Apr 16 j 11:49	3°♓06'33		evening set	270 Aug 09 j 22:46	1°♏05'55	
	265 May 09 j 01:03	30°♒♍		max. Earth dist.	270 Sep 01 j 10:37	15°♏49'51	2.59953 AU
opposition	265 May 19 j 02:50	27°♒02'46	-2°-11'-31		270 Sep 22 j 14:36	0°♑	
greatest brilliancy	265 May 20 j 01:13	26°♒45'09	-2.5m				
min. Earth dist.	265 May 27 j 01:45	24°♒33'02	0.43730 AU	conjunction	270 Sep 25 j 15:55	2°♑04'15	0°38'36
direct	265 Jun 23 j 15:35	19°♒44'11		minimum elong	270 Sep 25 j 17:08	2°♑06'21	0°38'35
	265 Aug 03 j 19:05	0°♓			270 Nov 04 j 21:59	0°♒	
	265 Sep 24 j 15:46	0°♑		morning rise	270 Nov 12 j 16:59	5°♒32'40	
	265 Nov 06 j 14:27	0°♒		desc. node	270 Dec 02 j 03:57	19°♒35'01	
	265 Dec 18 j 02:37	0°♑			270 Dec 16 j 08:53	0°♓	
	266 Jan 29 j 03:21	0°♒			271 Jan 25 j 09:12	0°♑	
asc. node	266 Feb 08 j 15:41	7°♒22'07			271 Mar 05 j 13:34	0°♒	
	266 Mar 13 j 12:50	0°♓			271 Apr 13 j 17:53	0°♑	
	266 Apr 27 j 12:22	0°♑			271 May 24 j 01:21	0°♒	
evening set	266 May 26 j 14:48	18°♑56'09			271 Jul 06 j 08:59	0°♓	
	266 Jun 12 j 19:28	0°♑			271 Aug 27 j 07:23	0°♑	
				asc. node	271 Oct 01 j 12:22	12°♑34'44	
conjunction	266 Jul 13 j 10:24	19°♑34'14	1°06'31	retrograde	271 Oct 18 j 00:46	14°♑21'13	
minimum elong	266 Jul 13 j 09:43	19°♑33'07	1°06'31	min. Earth dist.	271 Nov 21 j 04:34	6°♑36'48	0.59840 AU
max. Earth dist.	266 Jul 15 j 17:38	21°♑02'13	2.67200 AU	opposition	271 Nov 26 j 14:30	4°♑27'55	2°19'30
	266 Jul 29 j 19:19	0°♑		greatest brilliancy	271 Nov 25 j 21:51	4°♑44'26	-1.6m
morning rise	266 Aug 27 j 13:40	18°♑19'50			271 Dec 08 j 18:04	30°♒♓	
	266 Sep 14 j 19:53	0°♏		direct	272 Jan 02 j 22:49	25°♓48'31	
	266 Oct 31 j 10:44	0°♑			272 Jan 30 j 16:34	0°♑	
	266 Dec 16 j 14:44	0°♒			272 Apr 08 j 16:19	0°♑	
	267 Jan 31 j 16:39	0°♓			272 May 31 j 17:03	0°♑	
desc. node	267 Feb 27 j 04:57	17°♓04'34			272 Jul 19 j 09:38	0°♏	
	267 Mar 19 j 16:25	0°♑			272 Sep 03 j 00:54	0°♑	
	267 May 10 j 21:03	0°♒		evening set	272 Sep 18 j 23:02	10°♑54'45	
retrograde	267 Jul 05 j 00:26	16°♒17'18		max. Earth dist.	272 Oct 03 j 23:51	21°♑25'43	2.49003 AU
min. Earth dist.	267 Aug 02 j 03:27	11°♒42'16	0.37692 AU		272 Oct 16 j 00:44	0°♒	
opposition	267 Aug 04 j 21:22	10°♒57'31	-6°-49'-43	desc. node	272 Oct 19 j 02:20	2°♒12'17	
greatest brilliancy	267 Aug 04 j 04:53	11°♒08'44	-2.9m				
direct	267 Sep 03 j 12:26	6°♒00'34		conjunction	272 Nov 09 j 13:12	17°♒51'25	0°-13'-35
	267 Nov 12 j 21:25	0°♑		minimum elong	272 Nov 09 j 12:27	17°♒50'04	0°13'35
asc. node	267 Dec 27 j 14:42	26°♑22'54		behind sun begin	272 Nov 08 j 23:35	17°♒26'19	
	268 Jan 02 j 10:36	0°♒		behind sun end	272 Nov 10 j 01:19	18°♒13'50	
	268 Feb 18 j 23:33	0°♓			272 Nov 25 j 20:12	0°♓	
	268 Apr 06 j 08:41	0°♑			273 Jan 04 j 02:01	0°♑	
	268 May 24 j 00:44	0°♑		morning rise	273 Jan 06 j 06:13	1°♓41'16	
evening set	268 Jul 03 j 10:52	25°♑27'56			273 Feb 11 j 12:16	0°♒	
	268 Jul 10 j 14:47	0°♑			273 Mar 21 j 23:20	0°♑	
max. Earth dist.	268 Aug 06 j 21:40	17°♑23'02	2.66213 AU		273 Apr 30 j 09:04	0°♒	
					273 Jun 10 j 17:39	0°♓	

	273 Jul 25 j 10:15	0°♊			279 Jan 19 j 11:38	0°♋		
asc. node	273 Aug 18 j 11:40	14°♊45'47			279 Feb 28 j 08:09	0°♌		
	273 Sep 15 j 02:34	0°♍		evening set	279 Mar 22 j 06:15	15°♌58'35		
retrograde	273 Nov 21 j 22:11	21°♍01'58		asc. node	279 Apr 10 j 09:01	29°♌35'20		
min. Earth dist.	273 Dec 30 j 09:58	11°♍49'54	0.66632 AU		279 Apr 10 j 23:02	0°♎		
opposition	274 Jan 01 j 01:56	11°♍09'46	4°10'58					
greatest brilliancy	273 Dec 31 j 16:38	11°♍19'07	-1.3m	conjunction	279 May 17 j 18:10	25°♎22'58	0°22'12	
direct	274 Feb 10 j 01:23	1°♍35'57		minimum elong	279 May 17 j 17:05	25°♎21'09	0°22'12	
	274 May 06 j 22:34	0°♏			279 May 24 j 14:30	0°♐		
	274 Jun 28 j 19:20	0°♑		max. Earth dist.	279 Jun 11 j 19:02	12°♐07'15	2.59520 AU	
	274 Aug 14 j 16:14	0°♒		morning rise	279 Jul 08 j 00:07	29°♐15'33		
desc. node	274 Sep 06 j 01:12	15°♒16'06			279 Jul 09 j 03:37	0°♓		
	274 Sep 26 j 21:12	0°♓			279 Aug 25 j 06:52	0°♑		
	274 Nov 06 j 11:31	0°♈			279 Oct 12 j 22:18	0°♒		
evening set	274 Nov 09 j 11:25	2°♈16'26			279 Dec 03 j 01:55	0°♓		
	274 Dec 15 j 08:40	0°♉			280 Jan 31 j 21:26	0°♔		
max. Earth dist.	274 Dec 27 j 20:54	9°♉49'15	2.37373 AU	retrograde	280 Mar 22 j 09:32	12°♔08'28		
				opposition	280 Apr 25 j 22:19	5°♔14'05	0°06'12	
conjunction	275 Jan 10 j 20:42	20°♉51'02	-1°-3'-1	greatest brilliancy	279 Sep 21 j 21:21	17°♑09'11	-4.4m	
minimum elong	275 Jan 10 j 19:12	20°♉48'04	1°03'01	desc. node	280 Apr 27 j 21:19	4°♔33'41		
	275 Jan 22 j 10:47	0°♊		min. Earth dist.	280 May 04 j 10:29	2°♔19'47	0.48912 AU	
	275 Mar 01 j 16:04	0°♋			280 May 11 j 23:24	30°♒♑		
morning rise	275 Mar 21 j 19:49	15°♋33'16		direct	280 Jun 02 j 20:45	26°♑45'57		
	275 Apr 09 j 21:20	0°♌			280 Jun 25 j 07:02	0°♔		
	275 May 20 j 21:06	0°♍			280 Aug 25 j 05:59	0°♈		
	275 Jul 03 j 07:46	0°♎			280 Oct 07 j 20:32	0°♉		
asc. node	275 Jul 06 j 11:27	2°♎06'06			280 Nov 17 j 09:02	0°♊		
	275 Aug 19 j 02:09	0°♏			280 Dec 27 j 12:46	0°♋		
	275 Oct 10 j 22:10	0°♐			281 Feb 06 j 14:35	0°♌		
retrograde	275 Dec 26 j 14:19	24°♐26'58		asc. node	281 Feb 25 j 08:21	13°♌19'50		
opposition	276 Feb 04 j 03:29	15°♐05'31	4°33'59		281 Mar 21 j 06:37	0°♍		
greatest brilliancy	276 Feb 04 j 13:16	14°♐55'49	-1.2m		281 May 04 j 17:28	0°♎		
min. Earth dist.	276 Feb 06 j 08:43	14°♐12'48	0.66979 AU	evening set	281 May 10 j 02:28	3°♎33'15		
direct	276 Mar 16 j 09:26	5°♐05'56			281 Jun 19 j 16:43	0°♏		
	276 Jun 01 j 19:13	0°♑						
	276 Jul 23 j 02:59	0°♒		conjunction	281 Jun 28 j 13:05	5°♏41'29	0°59'29	
desc. node	276 Jul 24 j 00:17	0°♒34'02		minimum elong	281 Jun 28 j 11:55	5°♏39'37	0°59'29	
	276 Sep 05 j 14:10	0°♓		max. Earth dist.	281 Jul 06 j 11:36	10°♏46'57	2.66104 AU	
	276 Oct 16 j 12:18	0°♈			281 Aug 05 j 14:40	0°♐		
	276 Nov 24 j 10:00	0°♉		morning rise	281 Aug 13 j 15:53	5°♐07'01		
greatest brilliancy	276 Dec 29 j 12:23	27°♉39'19	1.2m		281 Sep 21 j 21:06	0°♒		
	277 Jan 01 j 11:40	0°♊			281 Nov 08 j 04:56	0°♓		
evening set	277 Jan 15 j 13:26	11°♊05'17			281 Dec 25 j 20:24	0°♔		
	277 Feb 08 j 18:16	0°♋			282 Feb 12 j 22:59	0°♕		
	277 Mar 20 j 03:00	0°♌		desc. node	282 Mar 15 j 21:45	17°♕37'50		
					282 Apr 09 j 07:43	0°♖		
conjunction	277 Mar 22 j 21:16	2°♌03'35	0°-37'00	retrograde	282 Jun 03 j 02:19	15°♖01'57		
minimum elong	277 Mar 22 j 23:49	2°♌08'19	0°37'00	opposition	282 Jul 03 j 08:09	10°♖02'25	-6°-8'-22	
	277 Apr 30 j 06:06	0°♍		greatest brilliancy	282 Jul 04 j 01:04	9°♖51'05	-2.8m	
max. Earth dist.	277 May 07 j 22:08	5°♍25'40	2.47961 AU	min. Earth dist.	282 Jul 05 j 23:57	9°♖19'45	0.37969 AU	
morning rise	277 May 23 j 10:46	16°♍16'02		direct	282 Aug 03 j 01:40	4°♖45'30		
asc. node	277 May 23 j 09:59	16°♍14'41			282 Oct 12 j 17:53	0°♊		
	277 Jun 12 j 13:19	0°♎			282 Nov 29 j 14:48	0°♋		
	277 Jul 28 j 05:01	0°♏		asc. node	283 Jan 13 j 06:00	29°♋41'04		
	277 Sep 14 j 13:32	0°♐			283 Jan 13 j 17:21	0°♌		
	277 Nov 06 j 13:05	0°♑			283 Feb 27 j 23:19	0°♍		
retrograde	278 Feb 01 j 23:45	29°♑25'50			283 Apr 15 j 03:16	0°♎		
opposition	278 Mar 11 j 19:02	20°♑58'30	3°29'47		283 Jun 01 j 03:12	0°♏		
greatest brilliancy	278 Mar 12 j 19:49	20°♑34'48	-1.5m	evening set	283 Jun 19 j 19:00	11°♏50'10		
min. Earth dist.	278 Mar 17 j 18:35	18°♑41'36	0.60769 AU		283 Jul 18 j 09:57	0°♐		
direct	278 Apr 21 j 17:36	11°♑06'50		max. Earth dist.	283 Jul 29 j 23:29	7°♐21'37	2.67253 AU	
desc. node	278 Jun 10 j 22:46	24°♑00'36						
	278 Jun 23 j 10:43	0°♒		conjunction	283 Aug 05 j 00:48	11°♑13'22	1°09'20	
	278 Aug 12 j 21:38	0°♓		minimum elong	283 Aug 05 j 00:59	11°♑13'39	1°09'20	
	278 Sep 24 j 13:54	0°♈			283 Sep 03 j 06:55	0°♑		
	278 Nov 03 j 05:24	0°♉		morning rise	283 Sep 18 j 13:20	9°♑53'37		
	278 Dec 11 j 18:19	0°♊			283 Oct 19 j 05:17	0°♒		

	283 Dec 03 j 00:09	0°♌		min. Earth dist.	288 Dec 15 j 07:27	28°♊56'43	0.64707 AU
	284 Jan 15 j 17:03	0°♈		opposition	288 Dec 18 j 11:33	27°♊40'21	3°39'45
desc. node	284 Jan 31 j 20:58	11°♈15'11		greatest brilliancy	288 Dec 17 j 20:53	27°♊55'05	-1.4m
	284 Feb 27 j 14:46	0°♈		direct	289 Jan 26 j 14:16	18°♊24'04	
	284 Apr 10 j 10:11	0°♊			289 Mar 17 j 06:35	0°♊	
	284 May 25 j 06:25	0°♈			289 May 17 j 05:16	0°♊	
	284 Jul 25 j 06:47	0°♊			289 Jul 06 j 20:38	0°♊	
retrograde	284 Aug 14 j 15:53	2°♊50'24			289 Aug 22 j 02:33	0°♊	
	284 Sep 03 j 15:59	30°♊		desc. node	289 Sep 22 j 17:15	21°♊49'35	
min. Earth dist.	284 Sep 10 j 14:18	27°♊57'36	0.42768 AU		289 Oct 04 j 04:24	0°♌	
greatest brilliancy	284 Sep 16 j 23:03	25°♊53'31	-2.5m	evening set	289 Oct 18 j 13:43	10°♌26'33	
opposition	284 Sep 18 j 09:00	25°♊25'42	-4°-1'-47	max. Earth dist.	289 Nov 06 j 15:49	24°♌35'56	2.41164 AU
direct	284 Oct 19 j 21:04	19°♊21'10			289 Nov 13 j 19:59	0°♈	
asc. node	284 Nov 30 j 04:58	28°♊38'40					
	284 Dec 03 j 13:41	0°♊		conjunction	289 Dec 15 j 03:52	24°♈01'58	0°-48'-46
	285 Jan 31 j 09:59	0°♈		minimum elong	289 Dec 15 j 01:20	23°♈57'04	0°48'45
	285 Mar 23 j 08:47	0°♊			289 Dec 22 j 19:48	0°♈	
	285 May 11 j 15:57	0°♊			290 Jan 30 j 00:09	0°♊	
	285 Jun 29 j 00:05	0°♊		morning rise	290 Feb 19 j 20:21	16°♊23'30	
evening set	285 Jul 26 j 06:49	17°♊16'03			290 Mar 09 j 06:30	0°♈	
	285 Aug 15 j 02:00	0°♊			290 Apr 17 j 12:00	0°♊	
max. Earth dist.	285 Aug 22 j 00:21	4°♊30'16	2.63010 AU		290 May 28 j 12:41	0°♈	
					290 Jul 11 j 05:30	0°♊	
conjunction	285 Sep 10 j 06:12	17°♊08'38	0°52'22	asc. node	290 Jul 23 j 02:19	7°♊45'17	
minimum elong	285 Sep 10 j 07:25	17°♊10'38	0°52'21		290 Aug 28 j 00:39	0°♊	
	285 Sep 29 j 11:59	0°♊			290 Oct 25 j 03:17	0°♊	
morning rise	285 Oct 26 j 11:00	18°♊24'25		retrograde	290 Dec 12 j 23:15	11°♊42'35	
	285 Nov 12 j 02:08	0°♌		opposition	291 Jan 21 j 21:18	2°♊06'31	4°34'30
desc. node	285 Dec 18 j 19:25	26°♌14'36		greatest brilliancy	291 Jan 21 j 23:14	2°♊04'35	-1.2m
	285 Dec 23 j 23:18	0°♈		min. Earth dist.	291 Jan 22 j 13:56	1°♊49'55	0.67631 AU
	286 Feb 02 j 11:50	0°♈			291 Jan 27 j 05:13	30°♊	
	286 Mar 14 j 04:54	0°♊		direct	291 Mar 03 j 19:28	22°♊13'52	
	286 Apr 22 j 23:13	0°♈			291 Apr 12 j 03:51	0°♊	
	286 Jun 03 j 04:17	0°♊			291 Jun 13 j 19:43	0°♊	
	286 Jul 18 j 21:35	0°♈			291 Aug 01 j 16:05	0°♊	
retrograde	286 Oct 02 j 13:05	27°♈57'00		desc. node	291 Aug 10 j 15:56	5°♊56'33	
asc. node	286 Oct 18 j 05:11	26°♈09'31			291 Sep 14 j 11:26	0°♌	
min. Earth dist.	286 Nov 03 j 16:22	20°♈56'19	0.55567 AU		291 Oct 25 j 04:56	0°♈	
opposition	286 Nov 10 j 09:52	18°♈19'32	1°04'09		291 Dec 03 j 01:32	0°♈	
greatest brilliancy	286 Nov 09 j 23:30	18°♈29'35	-1.8m	evening set	291 Dec 19 j 12:01	12°♈55'52	
direct	286 Dec 16 j 08:02	10°♈12'35			292 Jan 10 j 02:31	0°♊	
	287 Feb 21 j 17:52	0°♊			292 Feb 17 j 07:35	0°♈	
	287 Apr 19 j 14:29	0°♊					
	287 Jun 09 j 13:22	0°♊		conjunction	292 Feb 24 j 20:56	5°♈51'17	0°-56'-51
	287 Jul 27 j 13:44	0°♊		minimum elong	292 Feb 24 j 23:41	5°♈56'36	0°56'51
evening set	287 Sep 03 j 06:10	24°♊44'48			292 Mar 27 j 13:49	0°♊	
	287 Sep 11 j 01:00	0°♊		max. Earth dist.	292 Apr 15 j 18:48	14°♊14'16	2.42575 AU
max. Earth dist.	287 Sep 20 j 06:35	6°♊17'45	2.53739 AU	morning rise	292 May 01 j 10:15	25°♊35'27	
					292 May 07 j 14:01	0°♈	
conjunction	287 Oct 22 j 07:44	28°♊42'54	0°09'01	asc. node	292 Jun 09 j 02:16	22°♈42'16	
minimum elong	287 Oct 22 j 08:09	28°♊43'38	0°09'01		292 Jun 19 j 20:13	0°♊	
behind sun begin	287 Oct 21 j 14:05	28°♊11'27			292 Aug 04 j 17:26	0°♊	
behind sun end	287 Oct 23 j 02:12	29°♊15'50			292 Sep 23 j 02:47	0°♊	
	287 Oct 24 j 02:56	0°♌			292 Nov 19 j 15:02	0°♊	
desc. node	287 Nov 05 j 18:08	9°♌05'48		retrograde	293 Jan 17 j 05:51	15°♊29'50	
	287 Dec 04 j 03:21	0°♈		opposition	293 Feb 24 j 21:31	6°♊37'53	4°06'45
morning rise	287 Dec 14 j 05:42	7°♈34'46		greatest brilliancy	293 Feb 25 j 18:08	6°♊17'49	-1.4m
	288 Jan 12 j 15:13	0°♈		min. Earth dist.	293 Mar 01 j 10:42	4°♊51'47	0.63964 AU
	288 Feb 20 j 07:07	0°♊			293 Mar 15 j 10:57	30°♊	
	288 Mar 29 j 23:01	0°♈		direct	293 Apr 07 j 04:43	26°♊37'38	
	288 May 08 j 14:00	0°♊			293 May 01 j 13:46	0°♊	
	288 Jun 19 j 08:34	0°♈		desc. node	293 Jun 27 j 15:19	24°♊46'37	
	288 Aug 04 j 08:02	0°♊			293 Jul 06 j 18:22	0°♊	
asc. node	288 Sep 04 j 04:11	17°♊23'08			293 Aug 22 j 14:21	0°♌	
	288 Oct 02 j 08:09	0°♊			293 Oct 03 j 06:57	0°♈	
retrograde	288 Nov 08 j 09:20	7°♊37'38			293 Nov 11 j 12:27	0°♈	
	288 Dec 12 j 15:43	30°♊			293 Dec 19 j 18:58	0°♊	

	294 Jan 27 j 06:23	0°♏			298 Dec 11 j 01:53	0°♍		
evening set	294 Feb 26 j 15:45	23°♏07'41			299 Jan 25 j 02:31	0°♏		
	294 Mar 07 j 20:48	0°♐		desc. node	299 Feb 17 j 12:46	15°♏39'23		
	294 Apr 18 j 05:34	0°♑			299 Mar 11 j 02:29	0°♐		
asc. node	294 Apr 27 j 00:49	6°♑11'52			299 Apr 26 j 18:09	0°♑		
					299 Jun 25 j 15:13	0°♏		
conjunction	294 Apr 28 j 02:47	6°♑57'18	0°00'41	retrograde	299 Jul 21 j 07:59	4°♏18'10		
minimum elong	294 Apr 28 j 02:42	6°♑57'09	0°00'41		299 Aug 16 j 16:34	30°♑		
behind sun begin	294 Apr 27 j 02:54	6°♑15'33		min. Earth dist.	299 Aug 17 j 04:19	29°♑51'41	0.38874 AU	
behind sun end	294 Apr 29 j 02:29	7°♑38'43		greatest brilliancy	299 Aug 21 j 04:59	28°♑42'14	-2.8m	
max. Earth dist.	294 May 31 j 03:17	29°♑38'13	2.55530 AU	opposition	299 Aug 22 j 12:00	28°♑19'53	-6°-10'-33	
	294 May 31 j 16:12	0°♒		direct	299 Sep 21 j 08:15	23°♑07'11		
morning rise	294 Jun 21 j 16:25	14°♒00'58			299 Oct 25 j 19:26	0°♏		
	294 Jul 16 j 04:06	0°♑		asc. node	299 Dec 17 j 21:56	25°♏58'06		
	294 Sep 01 j 14:23	0°♒			299 Dec 24 j 22:15	0°♐		
	294 Oct 21 j 07:35	0°♑			300 Feb 12 j 15:57	0°♑		
	294 Dec 15 j 01:26	0°♓			300 Mar 31 j 23:45	0°♒		
retrograde	295 Mar 02 j 01:35	24°♓08'12			300 May 19 j 03:04	0°♑		
opposition	295 Apr 07 j 03:04	16°♓30'51	1°48'16		300 Jul 05 j 22:40	0°♒		
greatest brilliancy	295 Apr 07 j 22:54	16°♓12'49	-1.9m	evening set	300 Jul 11 j 18:49	3°♒41'41		
min. Earth dist.	295 Apr 15 j 00:21	13°♓39'30	0.54070 AU	max. Earth dist.	300 Aug 12 j 09:08	23°♒51'49	2.65298 AU	
desc. node	295 May 15 j 14:27	7°♓16'07			300 Aug 21 j 21:13	0°♑		
direct	295 May 16 j 17:07	7°♓15'37						
	295 Jul 23 j 08:05	0°♍		conjunction	300 Aug 26 j 12:33	3°♑00'34	1°02'07	
	295 Sep 08 j 07:24	0°♏		minimum elong	300 Aug 26 j 13:29	3°♑02'05	1°02'07	
	295 Oct 19 j 10:59	0°♐			300 Oct 06 j 10:39	0°♓		
	295 Nov 27 j 20:00	0°♑		morning rise	300 Oct 10 j 14:56	2°♓48'15		
	296 Jan 06 j 04:49	0°♏			300 Nov 19 j 09:55	0°♍		
	296 Feb 15 j 15:23	0°♐			300 Dec 31 j 20:25	0°♏		
asc. node	296 Mar 13 j 23:02	19°♐36'01		desc. node	301 Jan 04 j 11:55	2°♏37'21		
	296 Mar 28 j 18:47	0°♑			301 Feb 11 j 01:08	0°♐		
evening set	296 Apr 22 j 06:14	16°♑49'32			301 Mar 23 j 12:24	0°♑		
	296 May 11 j 20:03	0°♒			301 May 03 j 05:46	0°♏		
					301 Jun 15 j 06:46	0°♐		
conjunction	296 Jun 12 j 22:16	21°♒08'56	0°48'22		301 Aug 07 j 12:05	0°♑		
minimum elong	296 Jun 12 j 20:50	21°♒06'35	0°48'20	retrograde	301 Sep 15 j 11:11	9°♑18'59		
	296 Jun 26 j 13:37	0°♑		min. Earth dist.	301 Oct 15 j 11:11	3°♑07'07	0.50677 AU	
max. Earth dist.	296 Jun 26 j 23:23	0°♑15'47	2.64173 AU	opposition	301 Oct 23 j 05:06	0°♑13'50	0°-35'-21	
morning rise	296 Jul 30 j 13:09	21°♑47'01		greatest brilliancy	301 Oct 22 j 22:50	0°♑19'41	-2.1m	
	296 Aug 12 j 11:37	0°♒			301 Oct 23 j 19:59	30°♑		
	296 Sep 29 j 02:50	0°♑		asc. node	301 Nov 03 j 20:34	26°♐15'15		
	296 Nov 16 j 10:51	0°♓		direct	301 Nov 26 j 12:23	22°♐47'31		
	297 Jan 05 j 11:10	0°♍			302 Jan 02 j 03:49	0°♑		
	297 Mar 02 j 13:03	0°♏			302 Mar 06 j 20:30	0°♒		
desc. node	297 Apr 01 j 13:08	11°♏56'07			302 Apr 28 j 09:23	0°♑		
retrograde	297 May 02 j 12:36	17°♏10'27			302 Jun 17 j 00:38	0°♒		
opposition	297 Jun 03 j 02:41	11°♏34'43	-3°-42'-16		302 Aug 03 j 13:50	0°♑		
greatest brilliancy	297 Jun 04 j 07:46	11°♏13'02	-2.6m	evening set	302 Aug 18 j 14:27	9°♑46'16		
min. Earth dist.	297 Jun 09 j 20:04	9°♏34'57	0.41187 AU	max. Earth dist.	302 Sep 07 j 22:21	23°♑14'08	2.57923 AU	
direct	297 Jul 06 j 23:08	5°♏01'54			302 Sep 17 j 23:25	0°♓		
	297 Sep 13 j 20:05	0°♐						
	297 Oct 29 j 21:19	0°♑		conjunction	302 Oct 04 j 23:18	11°♓37'00	0°28'46	
	297 Dec 11 j 16:04	0°♏		minimum elong	302 Oct 05 j 00:22	11°♓38'50	0°28'46	
	298 Jan 23 j 10:45	0°♐			302 Oct 31 j 05:14	0°♍		
asc. node	298 Jan 29 j 22:32	4°♐29'46		desc. node	302 Nov 22 j 10:12	15°♍58'17		
	298 Mar 08 j 07:50	0°♑		morning rise	302 Nov 23 j 10:24	16°♍42'19		
	298 Apr 22 j 15:08	0°♒			302 Dec 11 j 12:34	0°♏		
evening set	298 Jun 04 j 15:19	27°♒46'23			303 Jan 20 j 08:30	0°♐		
	298 Jun 08 j 02:51	0°♑			303 Feb 28 j 08:08	0°♑		
					303 Apr 08 j 07:01	0°♏		
conjunction	298 Jul 21 j 18:18	27°♑49'04	1°08'44		303 May 18 j 06:29	0°♐		
minimum elong	298 Jul 21 j 17:55	27°♑48'27	1°08'43		303 Jun 29 j 19:00	0°♑		
max. Earth dist.	298 Jul 21 j 01:08	27°♑21'44	2.67456 AU		303 Aug 17 j 09:26	0°♒		
	298 Jul 25 j 04:33	0°♒		asc. node	303 Sep 21 j 20:09	16°♒30'11		
morning rise	298 Sep 04 j 13:04	26°♒24'29		retrograde	303 Oct 26 j 08:43	23°♒25'20		
	298 Sep 10 j 03:25	0°♑		min. Earth dist.	303 Nov 30 j 13:21	15°♒19'46	0.61821 AU	
	298 Oct 26 j 11:34	0°♓		greatest brilliancy	303 Dec 04 j 11:39	13°♒45'42	-1.5m	

opposition	303 Dec 05 j 04:56	13° Π 28'27	2°53'58	conjunction	309 Apr 05 j 19:39	15° Υ 49'44	0°-23'-22
direct	304 Jan 12 j 06:09	4° Π 34'22		minimum elong	309 Apr 05 j 21:16	15° Υ 52'42	0°23'22
	304 Apr 01 j 04:47	0° \mathfrak{S}			309 Apr 25 j 12:17	0° \mathfrak{S}	
	304 May 26 j 04:28	0° Ω		asc. node	309 May 13 j 16:49	12° \mathfrak{S} 47'34	
	304 Jul 14 j 11:37	0° \mathfrak{M}		max. Earth dist.	309 May 17 j 10:13	15° \mathfrak{S} 22'43	2.50790 AU
	304 Aug 29 j 07:52	0° \mathfrak{A}		morning rise	309 Jun 03 j 16:38	27° \mathfrak{S} 13'08	
evening set	304 Sep 29 j 03:39	21° \mathfrak{A} 18'27			309 Jun 07 j 19:13	0° Π	
desc. node	304 Oct 09 j 09:27	28° \mathfrak{A} 35'19			309 Jul 23 j 07:52	0° \mathfrak{S}	
	304 Oct 11 j 08:42	0° \mathfrak{M}			309 Sep 09 j 05:34	0° Ω	
max. Earth dist.	304 Oct 14 j 01:14	1° \mathfrak{M} 56'01	2.46179 AU		309 Oct 30 j 15:20	0° \mathfrak{M}	
					310 Jan 01 j 18:06	0° \mathfrak{A}	
conjunction	304 Nov 21 j 14:33	0° \mathfrak{A} 22'05	0°-27'-2	retrograde	310 Feb 11 j 14:33	8° \mathfrak{A} 17'17	
minimum elong	304 Nov 21 j 13:02	0° \mathfrak{A} 19'12	0°27'02	opposition	310 Mar 20 j 20:56	0° \mathfrak{A} 05'48	2°59'18
	304 Nov 21 j 02:50	0° \mathfrak{A}			310 Mar 21 j 03:06	30° \mathfrak{R} \mathfrak{M}	
	304 Dec 30 j 06:31	0° \mathfrak{S}		greatest brilliancy	310 Mar 21 j 21:57	29° \mathfrak{M} 42'14	-1.6m
morning rise	305 Jan 21 j 12:53	17° \mathfrak{S} 23'27		min. Earth dist.	310 Mar 27 j 14:34	27° \mathfrak{M} 34'02	0.58606 AU
	305 Feb 06 j 14:29	0° \approx		direct	310 Apr 30 j 11:24	20° \mathfrak{M} 23'23	
greatest brilliancy	305 Feb 22 j 23:50	12° \approx 51'32	1.2m	desc. node	310 Jun 01 j 05:54	26° \mathfrak{M} 10'31	
	305 Mar 16 j 23:22	0° \mathfrak{H}			310 Jun 11 j 12:11	0° \mathfrak{A}	
	305 Apr 25 j 06:47	0° Υ			310 Aug 06 j 00:12	0° \mathfrak{M}	
	305 Jun 05 j 10:57	0° \mathfrak{S}			310 Sep 18 j 17:02	0° \mathfrak{A}	
	305 Jul 19 j 15:14	0° Π			310 Oct 28 j 18:22	0° \mathfrak{S}	
asc. node	305 Aug 08 j 19:05	12° Π 45'06			310 Dec 06 j 12:57	0° \approx	
	305 Sep 07 j 07:06	0° \mathfrak{S}			311 Jan 14 j 10:25	0° \mathfrak{H}	
retrograde	305 Nov 29 j 13:55	28° \mathfrak{S} 55'24			311 Feb 23 j 10:38	0° Υ	
opposition	306 Jan 08 j 16:59	19° \mathfrak{S} 07'58	4°23'06	asc. node	311 Mar 31 j 16:27	26° Υ 07'17	
greatest brilliancy	306 Jan 08 j 11:23	19° \mathfrak{S} 13'35	-1.2m	evening set	311 Apr 03 j 10:48	28° Υ 04'16	
min. Earth dist.	306 Jan 07 j 20:54	19° \mathfrak{S} 28'06	0.67276 AU		311 Apr 06 j 04:39	0° \mathfrak{S}	
direct	306 Feb 18 j 02:12	9° \mathfrak{S} 26'24			311 May 19 j 22:14	0° Π	
	306 Apr 29 j 01:32	0° Ω					
	306 Jun 23 j 04:31	0° \mathfrak{M}		conjunction	311 May 28 j 01:07	5° Π 25'44	0°32'56
	306 Aug 09 j 16:04	0° \mathfrak{A}		minimum elong	311 May 27 j 23:45	5° Π 23'28	0°32'56
desc. node	306 Aug 27 j 09:20	11° \mathfrak{A} 57'54		max. Earth dist.	311 Jun 18 j 00:44	19° Π 17'14	2.61384 AU
	306 Sep 22 j 02:11	0° \mathfrak{M}			311 Jul 04 j 11:40	0° \mathfrak{S}	
	306 Nov 01 j 17:41	0° \mathfrak{A}		morning rise	311 Jul 16 j 19:38	7° \mathfrak{S} 56'58	
evening set	306 Nov 23 j 02:06	16° \mathfrak{A} 21'20			311 Aug 20 j 11:44	0° Ω	
	306 Dec 10 j 14:33	0° \mathfrak{S}			311 Oct 07 j 16:07	0° \mathfrak{M}	
	307 Jan 17 j 15:51	0° \approx			311 Nov 26 j 12:42	0° \mathfrak{A}	
					312 Jan 20 j 00:11	0° \mathfrak{M}	
conjunction	307 Jan 26 j 23:41	7° \approx 21'56	-1°-5'-10	retrograde	312 Apr 05 j 00:45	23° \mathfrak{M} 59'23	
minimum elong	307 Jan 26 j 23:50	7° \approx 22'14	1°05'11	desc. node	312 Apr 18 j 05:21	22° \mathfrak{M} 54'15	
	307 Feb 24 j 20:15	0° \mathfrak{H}		opposition	312 May 08 j 12:44	17° \mathfrak{M} 32'21	-1°-7'-57
max. Earth dist.	307 Mar 03 j 01:24	4° \mathfrak{H} 49'31	2.37839 AU	greatest brilliancy	312 May 09 j 01:57	17° \mathfrak{M} 21'30	-2.3m
	307 Apr 05 j 00:53	0° Υ		min. Earth dist.	312 May 16 j 22:25	14° \mathfrak{M} 47'19	0.46007 AU
morning rise	307 Apr 06 j 21:34	1° Υ 23'45		direct	312 Jun 14 j 06:29	9° \mathfrak{M} 39'39	
	307 May 15 j 23:38	0° \mathfrak{S}			312 Aug 14 j 11:49	0° \mathfrak{A}	
asc. node	307 Jun 26 j 16:59	28° \mathfrak{S} 56'12			312 Sep 30 j 07:18	0° \mathfrak{S}	
	307 Jun 28 j 06:57	0° Π			312 Nov 10 j 22:51	0° \approx	
	307 Aug 13 j 14:33	0° \mathfrak{S}			312 Dec 21 j 17:45	0° \mathfrak{H}	
	307 Oct 03 j 17:21	0° Ω			313 Feb 01 j 06:11	0° Υ	
	307 Dec 14 j 11:03	0° \mathfrak{M}		asc. node	313 Feb 15 j 14:33	10° Υ 08'27	
retrograde	308 Jan 03 j 15:06	2° \mathfrak{M} 17'34			313 Mar 16 j 06:10	0° \mathfrak{S}	
	308 Jan 22 j 10:49	30° \mathfrak{R} Ω			313 Apr 29 j 22:39	0° Π	
opposition	308 Feb 11 j 22:03	23° Ω 05'35	4°27'44	evening set	313 May 19 j 16:18	12° Π 56'07	
greatest brilliancy	308 Feb 12 j 11:59	22° Ω 51'52	-1.3m		313 Jun 15 j 01:15	0° \mathfrak{S}	
min. Earth dist.	308 Feb 14 j 23:13	21° Ω 53'35	0.66196 AU				
direct	308 Mar 24 j 06:33	13° Ω 04'20		conjunction	313 Jul 07 j 03:43	14° \mathfrak{S} 09'55	1°04'04
	308 May 24 j 01:59	0° \mathfrak{M}		minimum elong	313 Jul 07 j 02:48	14° \mathfrak{S} 08'28	1°04'03
desc. node	308 Jul 14 j 07:42	28° \mathfrak{M} 14'00		max. Earth dist.	313 Jul 11 j 20:45	17° \mathfrak{S} 10'27	2.66812 AU
	308 Jul 17 j 04:05	0° \mathfrak{A}			313 Jul 31 j 23:45	0° Ω	
	308 Aug 31 j 07:56	0° \mathfrak{M}		morning rise	313 Aug 21 j 16:04	13° Ω 09'41	
	308 Oct 11 j 12:00	0° \mathfrak{A}			313 Sep 17 j 02:32	0° \mathfrak{M}	
	308 Nov 19 j 12:18	0° \mathfrak{S}			313 Nov 03 j 00:25	0° \mathfrak{A}	
	308 Dec 27 j 15:19	0° \approx			313 Dec 19 j 18:34	0° \mathfrak{M}	
evening set	309 Jan 31 j 05:14	27° \approx 06'16			314 Feb 04 j 22:45	0° \mathfrak{A}	
	309 Feb 03 j 22:48	0° \mathfrak{H}		desc. node	314 Mar 06 j 04:34	18° \mathfrak{A} 04'10	
	309 Mar 15 j 08:28	0° Υ			314 Mar 26 j 08:27	0° \mathfrak{S}	

	314 May 30 j 23:14	0°♊			319 Jul 22 j 18:41	0°♎		
retrograde	314 Jun 21 j 08:35	2°♊48'54			319 Sep 06 j 09:25	0°♊		
	314 Jul 12 j 21:27	30°♊		evening set	319 Sep 12 j 14:29	4°♊13'24		
opposition	314 Jul 21 j 14:20	27°♊46'59	-6°-49'-47	max. Earth dist.	319 Sep 28 j 06:28	15°♊01'32	2.51194 AU	
min. Earth dist.	314 Jul 21 j 07:01	27°♊51'49	0.37416 AU		319 Oct 19 j 11:30	0°♊		
greatest brilliancy	314 Jul 21 j 13:36	27°♊47'28	-2.9m	desc. node	319 Oct 27 j 01:53	5°♊27'43		
direct	314 Aug 20 j 10:30	22°♊49'41						
	314 Sep 23 j 23:25	0°♊		conjunction	319 Nov 01 j 22:27	9°♊42'23	0°-3'-43	
	314 Nov 20 j 11:02	0°♋		minimum elong	319 Nov 01 j 22:16	9°♊42'04	0°03'44	
asc. node	315 Jan 03 j 13:16	27°♋49'33		behind sun begin	319 Nov 01 j 00:33	9°♊02'37		
	315 Jan 06 j 22:07	0°♋		behind sun end	319 Nov 02 j 19:59	10°♊21'34		
	315 Feb 22 j 06:24	0°♌			319 Nov 29 j 10:08	0°♌		
	315 Apr 10 j 00:34	0°♍		morning rise	319 Dec 27 j 07:57	21°♌10'10		
	315 May 27 j 08:31	0°♍			320 Jan 07 j 19:11	0°♌		
evening set	315 Jun 28 j 05:43	20°♍08'33			320 Feb 15 j 08:04	0°♊		
	315 Jul 13 j 19:13	0°♎			320 Mar 24 j 20:40	0°♋		
max. Earth dist.	315 Aug 04 j 05:56	13°♎39'16	2.66779 AU		320 May 03 j 07:24	0°♋		
					320 Jun 13 j 18:07	0°♌		
conjunction	315 Aug 13 j 04:27	19°♎22'36	1°07'51		320 Jul 28 j 18:56	0°♍		
minimum elong	315 Aug 13 j 04:56	19°♎23'23	1°07'50	asc. node	320 Aug 25 j 10:04	16°♍30'28		
	315 Aug 29 j 16:23	0°♎			320 Sep 20 j 07:56	0°♍		
morning rise	315 Sep 26 j 18:43	18°♎18'36		retrograde	320 Nov 16 j 04:41	15°♍52'03		
	315 Oct 14 j 11:15	0°♏		min. Earth dist.	320 Dec 24 j 00:34	6°♍53'31	0.65902 AU	
	315 Nov 27 j 22:17	0°♏		opposition	320 Dec 26 j 08:55	5°♍56'58	3°59'43	
	316 Jan 10 j 02:39	0°♐		greatest brilliancy	320 Dec 25 j 20:55	6°♍09'01	-1.3m	
desc. node	316 Jan 22 j 03:32	8°♐30'08			321 Jan 11 j 18:06	30°♎		
	316 Feb 21 j 06:35	0°♐		direct	321 Feb 04 j 00:27	26°♎30'22		
	316 Apr 02 j 23:37	0°♑			321 Mar 01 j 09:44	0°♑		
	316 May 15 j 15:09	0°♋			321 May 10 j 16:28	0°♎		
	316 Jul 02 j 20:23	0°♋			321 Jul 01 j 13:54	0°♎		
retrograde	316 Aug 27 j 01:15	17°♋26'04			321 Aug 17 j 05:33	0°♏		
min. Earth dist.	316 Sep 23 j 23:02	12°♋05'49	0.45510 AU	desc. node	321 Sep 13 j 00:37	18°♏21'42		
greatest brilliancy	316 Sep 30 j 23:07	9°♋40'28	-2.4m		321 Sep 29 j 10:37	0°♏		
opposition	316 Oct 02 j 01:04	9°♋17'53	-2°-41'-36	evening set	321 Oct 30 j 14:54	22°♏51'51		
direct	316 Nov 03 j 13:56	2°♋41'51			321 Nov 09 j 02:31	0°♐		
asc. node	316 Nov 20 j 13:00	4°♋28'59		max. Earth dist.	321 Nov 28 j 17:02	14°♐58'27	2.38725 AU	
	317 Jan 22 j 19:48	0°♌			321 Dec 18 j 01:29	0°♐		
	317 Mar 17 j 06:59	0°♍						
	317 May 06 j 11:52	0°♍		conjunction	321 Dec 29 j 20:21	9°♐14'06	0°-58'-14	
	317 Jun 24 j 05:42	0°♎		minimum elong	321 Dec 29 j 18:05	9°♐09'37	0°58'14	
evening set	317 Aug 03 j 15:04	25°♎35'01			322 Jan 25 j 04:48	0°♑		
	317 Aug 10 j 11:25	0°♎			322 Mar 04 j 10:05	0°♋		
max. Earth dist.	317 Aug 27 j 21:41	11°♎21'41	2.61418 AU	morning rise	322 Mar 08 j 20:32	3°♋26'46		
					322 Apr 12 j 14:27	0°♋		
conjunction	317 Sep 18 j 22:31	25°♎59'23	0°44'52		322 May 23 j 13:10	0°♌		
minimum elong	317 Sep 18 j 23:47	26°♎01'29	0°44'52		322 Jul 06 j 00:08	0°♍		
	317 Sep 24 j 21:31	0°♏		asc. node	322 Jul 13 j 09:55	4°♍54'20		
morning rise	317 Nov 05 j 01:27	28°♏22'24			322 Aug 22 j 01:14	0°♍		
	317 Nov 07 j 08:52	0°♏			322 Oct 15 j 08:52	0°♎		
desc. node	317 Dec 09 j 03:13	22°♏45'45		retrograde	322 Dec 20 j 17:41	19°♎28'46		
	317 Dec 19 j 00:55	0°♐		opposition	323 Jan 29 j 11:42	10°♎00'15	4°35'30	
	318 Jan 28 j 06:50	0°♐		greatest brilliancy	323 Jan 29 j 17:57	9°♎54'01	-1.2m	
	318 Mar 08 j 16:34	0°♑		min. Earth dist.	323 Jan 31 j 00:28	9°♎23'44	0.67403 AU	
	318 Apr 17 j 01:48	0°♋		direct	323 Mar 11 j 15:28	0°♎03'14		
	318 May 27 j 16:01	0°♋			323 Jun 06 j 23:27	0°♎		
	318 Jul 10 j 16:06	0°♌			323 Jul 27 j 05:01	0°♏		
	318 Sep 04 j 18:39	0°♍		desc. node	323 Jul 31 j 23:39	3°♏05'50		
asc. node	318 Oct 08 j 11:16	7°♍56'19			323 Sep 09 j 10:37	0°♏		
retrograde	318 Oct 11 j 13:14	8°♍00'19			323 Oct 20 j 07:38	0°♐		
min. Earth dist.	318 Nov 13 j 20:05	0°♍35'05	0.58040 AU		323 Nov 28 j 05:19	0°♐		
	318 Nov 15 j 07:59	30°♎		evening set	324 Jan 04 j 05:39	29°♐10'35		
opposition	318 Nov 19 j 21:11	28°♎12'23	1°50'38		324 Jan 05 j 06:40	0°♑		
greatest brilliancy	318 Nov 19 j 06:02	28°♎27'17	-1.7m		324 Feb 12 j 11:58	0°♋		
direct	318 Dec 26 j 15:33	19°♎46'31						
	319 Feb 10 j 05:27	0°♍		conjunction	324 Mar 11 j 11:07	21°♋28'32	0°-46'-28	
	319 Apr 13 j 06:04	0°♍		minimum elong	324 Mar 11 j 14:05	21°♋34'08	0°46'27	
	319 Jun 04 j 08:21	0°♎			324 Mar 22 j 18:35	0°♋		

max. Earth dist.	324 Apr 29 j 15:44	27° Υ 45'14	2.45568 AU	retrograde	329 May 19 j 20:50	2° C 43'35	
	324 May 02 j 19:10	0° B			329 Jun 10 j 07:14	30° R 27	
morning rise	324 May 14 j 07:26	8° B 09'05		opposition	329 Jun 19 j 14:39	27° A 32'22	-5°-11'-32
asc. node	324 May 30 j 08:56	19° B 19'42		greatest brilliancy	329 Jun 20 j 17:04	27° A 13'54	-2.7m
	324 Jun 15 j 00:17	0° II		min. Earth dist.	329 Jun 24 j 09:22	26° A 12'34	0.39100 AU
	324 Jul 30 j 16:32	0° S		direct	329 Jul 21 j 14:22	21° A 45'45	
	324 Sep 17 j 08:31	0° Q			329 Aug 27 j 05:13	0° C	
	324 Nov 10 j 16:58	0° P			329 Oct 20 j 14:35	0° \approx	
retrograde	325 Jan 26 j 01:44	23° P 49'26			329 Dec 04 j 13:43	0° H	
opposition	325 Mar 05 j 07:11	15° P 10'20	3°47'04		330 Jan 17 j 10:29	0° Υ	
greatest brilliancy	325 Mar 06 j 06:21	14° P 48'01	-1.4m	asc. node	330 Jan 20 j 04:55	1° Υ 53'03	
min. Earth dist.	325 Mar 10 j 15:42	13° P 06'45	0.62322 AU		330 Mar 02 j 23:29	0° B	
direct	325 Apr 15 j 11:07	5° P 13'53			330 Apr 17 j 16:38	0° II	
desc. node	325 Jun 17 j 22:17	24° P 13'13			330 Jun 03 j 10:18	0° S	
	325 Jun 28 j 22:31	0° A		evening set	330 Jun 13 j 09:22	6° S 20'36	
	325 Aug 16 j 15:06	0° M			330 Jul 20 j 14:30	0° Q	
	325 Sep 27 j 21:18	0° A		max. Earth dist.	330 Jul 26 j 07:16	3° Q 37'35	2.67456 AU
	325 Nov 06 j 08:34	0° C					
	325 Dec 14 j 18:27	0° \approx		conjunction	330 Jul 29 j 22:58	5° Q 57'14	1°09'33
	326 Jan 22 j 08:18	0° H		minimum elong	330 Jul 29 j 22:54	5° Q 57'09	1°09'32
	326 Mar 03 j 00:51	0° Υ			330 Sep 05 j 12:23	0° P	
evening set	326 Mar 12 j 08:28	6° Υ 52'01		morning rise	330 Sep 12 j 12:47	4° P 31'30	
	326 Apr 13 j 11:40	0° B			330 Oct 21 j 15:26	0° A	
asc. node	326 Apr 17 j 07:34	2° B 42'00			330 Dec 05 j 18:50	0° M	
					331 Jan 19 j 00:55	0° A	
conjunction	326 May 09 j 13:27	18° B 09'16	0°13'30	desc. node	331 Feb 07 j 20:39	13° A 35'01	
minimum elong	326 May 09 j 12:42	18° B 08'00	0°13'30		331 Mar 03 j 17:38	0° C	
behind sun begin	326 May 09 j 00:36	17° B 47'14			331 Apr 16 j 19:07	0° \approx	
behind sun end	326 May 10 j 00:49	18° B 28'46			331 Jun 03 j 15:59	0° H	
	326 May 26 j 23:30	0° II		retrograde	331 Aug 05 j 06:39	21° H 20'44	
max. Earth dist.	326 Jun 07 j 03:38	7° II 29'10	2.57829 AU	min. Earth dist.	331 Aug 31 j 19:10	16° H 44'38	0.40792 AU
morning rise	326 Jul 01 j 04:24	23° II 19'49		greatest brilliancy	331 Sep 06 j 07:50	15° H 02'47	-2.6m
	326 Jul 11 j 10:50	0° S		opposition	331 Sep 07 j 19:37	14° H 35'05	-5°-2'-25
	326 Aug 27 j 15:48	0° Q		direct	331 Oct 08 j 11:48	8° H 55'47	
	326 Oct 15 j 16:05	0° P		asc. node	331 Dec 08 j 03:49	26° H 58'33	
	326 Dec 07 j 00:20	0° A			331 Dec 14 j 05:38	0° Υ	
	327 Feb 12 j 18:03	0° M			332 Feb 05 j 18:38	0° B	
retrograde	327 Mar 13 j 17:57	4° M 30'30			332 Mar 26 j 09:41	0° II	
	327 Apr 09 j 21:31	30° R 27			332 May 14 j 03:37	0° S	
opposition	327 Apr 18 j 00:27	27° A 15'55	0°53'43		332 Jul 01 j 06:13	0° Q	
greatest brilliancy	327 Apr 18 j 11:49	27° A 05'54	-2.0m	evening set	332 Jul 20 j 02:06	11° Q 54'33	
min. Earth dist.	327 Apr 26 j 08:40	24° A 20'00	0.51264 AU		332 Aug 17 j 07:06	0° P	
desc. node	327 May 05 j 20:39	21° A 21'59		max. Earth dist.	332 Aug 17 j 21:49	0° P 23'51	2.64138 AU
direct	327 May 26 j 19:22	18° A 24'02					
	327 Jul 10 j 23:14	0° M		conjunction	332 Sep 03 j 21:15	11° P 27'47	0°56'56
	327 Aug 31 j 19:03	0° A		minimum elong	332 Sep 03 j 22:22	11° P 29'37	0°56'55
	327 Oct 13 j 03:01	0° C			332 Oct 01 j 19:26	0° A	
	327 Nov 22 j 01:46	0° \approx		morning rise	332 Oct 19 j 12:09	11° A 58'56	
	327 Dec 31 j 19:37	0° H			332 Nov 14 j 14:20	0° M	
	328 Feb 10 j 13:01	0° Υ		desc. node	332 Dec 25 j 18:58	29° M 18'14	
asc. node	328 Mar 04 j 06:49	16° Υ 15'47			332 Dec 26 j 18:02	0° A	
	328 Mar 23 j 21:57	0° B			333 Feb 05 j 13:48	0° C	
evening set	328 May 02 j 14:55	26° B 59'49			333 Mar 17 j 14:30	0° \approx	
	328 May 07 j 03:04	0° II			333 Apr 26 j 17:02	0° H	
					333 Jun 07 j 11:42	0° Υ	
conjunction	328 Jun 21 j 23:27	0° S 01'03	0°55'19		333 Jul 25 j 01:14	0° B	
minimum elong	328 Jun 21 j 22:09	29° II 58'57	0°55'18	retrograde	333 Sep 25 j 09:49	20° B 40'28	
	328 Jun 21 j 22:48	0° S		asc. node	333 Oct 25 j 03:51	14° B 33'38	
max. Earth dist.	328 Jul 02 j 13:45	6° S 50'38	2.65341 AU	min. Earth dist.	333 Oct 26 j 14:20	14° B 01'36	0.53430 AU
morning rise	328 Aug 07 j 16:40	29° S 54'35		opposition	333 Nov 02 j 20:36	11° B 15'07	0°25'10
	328 Aug 07 j 20:05	0° Q		greatest brilliancy	333 Nov 02 j 15:58	11° B 19'33	-1.9m
	328 Sep 24 j 05:47	0° P		direct	333 Dec 08 j 02:01	3° B 25'25	
	328 Nov 10 j 23:10	0° A			334 Feb 26 j 22:41	0° II	
	328 Dec 29 j 11:37	0° M			334 Apr 22 j 15:53	0° S	
	329 Feb 18 j 17:37	0° A			334 Jun 12 j 00:47	0° Q	
desc. node	329 Mar 22 j 21:03	16° A 32'44			334 Jul 29 j 21:01	0° P	
	329 Apr 28 j 07:55	0° C		evening set	334 Aug 27 j 10:26	18° P 39'10	

	334 Sep 13 j 08:46	0°♄			339 May 11 j 03:41	0°♄		
max. Earth dist.	334 Sep 14 j 17:45	0°♄55'53	2.55699 AU	asc. node	339 Jun 17 j 01:00	25°♄43'24		
					339 Jun 23 j 08:32	0°♄		
conjunction	334 Oct 14 j 15:21	21°♄34'03	0°17'48		339 Aug 08 j 07:56	0°♄		
minimum elong	334 Oct 14 j 16:06	21°♄35'21	0°17'48		339 Sep 27 j 05:51	0°♄		
	334 Oct 26 j 13:28	0°♄			339 Nov 26 j 22:49	0°♄		
desc. node	334 Nov 12 j 17:50	12°♄21'21		retrograde	340 Jan 11 j 20:51	10°♄15'11		
morning rise	334 Dec 04 j 20:28	28°♄35'40		opposition	340 Feb 19 j 20:19	1°♄13'40	4°17'02	
	334 Dec 06 j 17:51	0°♄		greatest brilliancy	340 Feb 20 j 14:06	0°♄56'17	-1.3m	
	335 Jan 15 j 09:40	0°♄			340 Feb 22 j 23:39	30°♄♄		
	335 Feb 23 j 05:02	0°♄		min. Earth dist.	340 Feb 23 j 17:40	29°♄42'28	0.65085 AU	
	335 Apr 02 j 23:29	0°♄		direct	340 Apr 01 j 05:26	21°♄12'14		
	335 May 12 j 16:42	0°♄			340 May 12 j 14:03	0°♄		
	335 Jun 23 j 16:12	0°♄		desc. node	340 Jul 04 j 14:36	26°♄21'30		
	335 Aug 09 j 09:15	0°♄			340 Jul 10 j 17:38	0°♄		
asc. node	335 Sep 12 j 03:14	17°♄57'54			340 Aug 25 j 19:57	0°♄		
	335 Oct 15 j 23:51	0°♄			340 Oct 06 j 07:54	0°♄		
retrograde	335 Nov 03 j 11:20	2°♄07'59			340 Nov 14 j 11:26	0°♄		
	335 Nov 21 j 00:29	30°♄♄			340 Dec 22 j 16:23	0°♄		
min. Earth dist.	335 Dec 09 j 15:38	23°♄42'30	0.63533 AU		341 Jan 30 j 01:33	0°♄		
opposition	335 Dec 13 j 11:54	22°♄10'11	3°22'40	evening set	341 Feb 15 j 11:19	12°♄36'21		
greatest brilliancy	335 Dec 12 j 19:31	22°♄26'33	-1.4m		341 Mar 10 j 12:50	0°♄		
direct	336 Jan 21 j 04:26	13°♄03'08						
	336 Mar 23 j 08:53	0°♄		conjunction	341 Apr 18 j 19:42	28°♄37'20	0°-9'-26	
	336 May 20 j 08:27	0°♄		minimum elong	341 Apr 18 j 20:19	28°♄38'27	0°09'27	
	336 Jul 09 j 10:25	0°♄		behind sun begin	341 Apr 18 j 00:05	28°♄02'27		
	336 Aug 24 j 13:34	0°♄		behind sun end	341 Apr 19 j 16:34	29°♄14'25		
desc. node	336 Sep 29 j 16:59	25°♄01'19			341 Apr 20 j 18:13	0°♄		
	336 Oct 06 j 16:20	0°♄		asc. node	341 May 04 j 00:05	9°♄20'02		
evening set	336 Oct 09 j 21:25	2°♄18'30		max. Earth dist.	341 May 25 j 14:26	24°♄14'52	2.53499 AU	
max. Earth dist.	336 Oct 25 j 22:34	13°♄59'41	2.43381 AU		341 Jun 03 j 01:45	0°♄		
	336 Nov 16 j 10:09	0°♄		morning rise	341 Jun 14 j 04:15	7°♄27'32		
					341 Jul 18 j 12:32	0°♄		
conjunction	336 Dec 04 j 11:51	13°♄44'57	0°-39'-54		341 Sep 04 j 01:53	0°♄		
minimum elong	336 Dec 04 j 09:38	13°♄40'43	0°39'54		341 Oct 24 j 08:45	0°♄		
	336 Dec 25 j 12:12	0°♄			341 Dec 20 j 11:36	0°♄		
	337 Feb 01 j 18:14	0°♄		retrograde	342 Feb 21 j 18:23	17°♄32'37		
morning rise	337 Feb 06 j 17:18	3°♄54'10		opposition	342 Mar 30 j 10:22	9°♄38'57	2°21'21	
	337 Mar 12 j 01:13	0°♄		greatest brilliancy	342 Mar 31 j 09:25	9°♄17'38	-1.7m	
	337 Apr 20 j 06:26	0°♄		min. Earth dist.	342 Apr 06 j 20:49	6°♄54'32	0.56200 AU	
	337 May 31 j 07:02	0°♄		direct	342 May 09 j 13:37	0°♄09'28		
	337 Jul 14 j 02:01	0°♄		desc. node	342 May 22 j 13:59	1°♄13'59		
asc. node	337 Jul 30 j 01:19	10°♄19'32			342 Jul 29 j 03:45	0°♄		
	337 Aug 31 j 10:01	0°♄			342 Sep 12 j 11:03	0°♄		
	337 Nov 01 j 16:19	0°♄			342 Oct 23 j 01:53	0°♄		
retrograde	337 Dec 07 j 05:57	6°♄45'20			342 Dec 01 j 03:37	0°♄		
	338 Jan 08 j 19:46	30°♄♄			343 Jan 09 j 06:19	0°♄		
opposition	338 Jan 16 j 07:16	27°♄03'43	4°31'10		343 Feb 18 j 10:48	0°♄		
greatest brilliancy	338 Jan 16 j 05:45	27°♄05'14	-1.2m	asc. node	343 Mar 21 j 21:56	22°♄39'02		
min. Earth dist.	338 Jan 16 j 07:26	27°♄03'33	0.67599 AU		343 Apr 01 j 08:40	0°♄		
direct	338 Feb 26 j 00:50	17°♄15'33		evening set	343 Apr 14 j 23:45	9°♄27'59		
	338 Apr 19 j 09:07	0°♄			343 May 15 j 05:09	0°♄		
	338 Jun 17 j 04:18	0°♄						
	338 Aug 04 j 11:30	0°♄		conjunction	343 Jun 06 j 20:45	15°♄01'25	0°42'23	
desc. node	338 Aug 17 j 15:40	8°♄46'59		minimum elong	343 Jun 06 j 19:17	14°♄59'01	0°42'23	
	338 Sep 17 j 04:13	0°♄		max. Earth dist.	343 Jun 23 j 23:24	26°♄12'13	2.63038 AU	
	338 Oct 27 j 22:03	0°♄			343 Jun 29 j 19:56	0°♄		
	338 Dec 05 j 19:23	0°♄		morning rise	343 Jul 25 j 08:25	16°♄24'06		
evening set	338 Dec 07 j 15:43	1°♄26'51			343 Aug 15 j 17:55	0°♄		
	339 Jan 12 j 20:40	0°♄			343 Oct 02 j 13:59	0°♄		
					343 Nov 20 j 11:41	0°♄		
conjunction	339 Feb 12 j 07:44	23°♄58'38	-1°-2'-15		344 Jan 10 j 23:55	0°♄		
minimum elong	339 Feb 12 j 09:37	24°♄02'18	1°02'15		344 Mar 14 j 10:50	0°♄		
	339 Feb 20 j 01:01	0°♄		desc. node	344 Apr 08 j 12:52	6°♄11'58		
	339 Mar 31 j 05:29	0°♄		retrograde	344 Apr 19 j 23:24	6°♄58'27		
max. Earth dist.	339 Apr 02 j 09:37	1°♄37'45	2.40246 AU	opposition	344 May 22 j 09:12	0°♄59'51	-2°-32'-43	
morning rise	339 Apr 21 j 18:04	15°♄57'54		greatest brilliancy	344 May 23 j 10:03	0°♄40'26	-2.5m	

	344 May 25 j 13:32	30° \mathbb{R} \mathbb{M}		max. Earth dist.	349 Sep 03 j 02:47	18° \mathbb{M} 30'16	2.59577 AU
min. Earth dist.	344 May 30 j 02:27	28° \mathbb{M} 35'33	0.43234 AU		349 Sep 20 j 06:55	0° \mathbb{L}	
direct	344 Jun 26 j 14:49	23° \mathbb{M} 49'12					
	344 Jul 27 j 17:51	0° \mathbb{J}		conjunction	349 Sep 27 j 23:03	5° \mathbb{L} 12'16	0°36'01
	344 Sep 21 j 09:22	0° \mathbb{Z}		minimum elong	349 Sep 28 j 00:14	5° \mathbb{L} 14'17	0°36'00
	344 Nov 03 j 22:15	0° \approx			349 Nov 02 j 16:07	0° \mathbb{M}	
	344 Dec 15 j 15:23	0° \mathbb{H}		morning rise	349 Nov 15 j 06:10	8° \mathbb{M} 57'51	
	345 Jan 26 j 17:47	0° \mathbb{Y}		desc. node	349 Nov 29 j 09:45	19° \mathbb{M} 11'01	
asc. node	345 Feb 05 j 21:12	7° \mathbb{Y} 06'17			349 Dec 14 j 04:14	0° \mathbb{J}	
	345 Mar 11 j 03:30	0° \mathbb{B}			350 Jan 23 j 05:02	0° \mathbb{Z}	
	345 Apr 25 j 02:38	0° \mathbb{I}			350 Mar 03 j 09:06	0° \approx	
evening set	345 May 28 j 22:30	21° \mathbb{I} 59'29			350 Apr 11 j 11:55	0° \mathbb{H}	
	345 Jun 10 j 09:26	0° \mathbb{G}			350 May 21 j 15:45	0° \mathbb{Y}	
					350 Jul 03 j 14:36	0° \mathbb{B}	
conjunction	345 Jul 15 j 14:11	22° \mathbb{G} 29'18	1°07'16		350 Aug 23 j 01:41	0° \mathbb{I}	
minimum elong	345 Jul 15 j 13:35	22° \mathbb{G} 28'21	1°07'16	asc. node	350 Sep 28 j 18:37	14° \mathbb{I} 32'51	
max. Earth dist.	345 Jul 17 j 05:09	23° \mathbb{G} 31'22	2.67278 AU	retrograde	350 Oct 20 j 03:41	17° \mathbb{I} 26'38	
	345 Jul 27 j 09:14	0° \mathbb{Q}		min. Earth dist.	350 Nov 23 j 12:19	9° \mathbb{I} 38'49	0.60234 AU
morning rise	345 Aug 29 j 15:16	21° \mathbb{Q} 11'36		opposition	350 Nov 28 j 19:37	7° \mathbb{I} 32'37	2°29'54
	345 Sep 12 j 09:47	0° \mathbb{M}		greatest brilliancy	350 Nov 28 j 02:21	7° \mathbb{I} 49'44	-1.6m
	345 Oct 28 j 23:57	0° \mathbb{L}			350 Dec 23 j 00:39	30° \mathbb{R} \mathbb{B}	
	345 Dec 14 j 01:37	0° \mathbb{M}		direct	351 Jan 05 j 08:14	28° \mathbb{B} 50'18	
	346 Jan 28 j 22:06	0° \mathbb{J}			351 Jan 19 j 08:54	0° \mathbb{I}	
desc. node	346 Feb 24 j 12:11	17° \mathbb{J} 16'39			351 Apr 06 j 07:43	0° \mathbb{G}	
	346 Mar 16 j 09:18	0° \mathbb{Z}			351 May 29 j 23:11	0° \mathbb{Q}	
	346 May 05 j 16:28	0° \approx			351 Jul 17 j 21:59	0° \mathbb{M}	
retrograde	346 Jul 08 j 17:06	21° \approx 04'35			351 Sep 01 j 17:06	0° \mathbb{L}	
min. Earth dist.	346 Aug 05 j 12:28	16° \approx 33'29	0.37844 AU	evening set	351 Sep 22 j 09:48	14° \mathbb{L} 11'20	
opposition	346 Aug 08 j 20:26	15° \approx 38'39	-6°-44'-22	max. Earth dist.	351 Oct 07 j 04:58	24° \mathbb{L} 34'44	2.48451 AU
greatest brilliancy	346 Aug 08 j 00:23	15° \approx 52'25	-2.8m		351 Oct 14 j 19:33	0° \mathbb{M}	
direct	346 Sep 07 j 09:59	10° \approx 39'58		desc. node	351 Oct 17 j 08:46	1° \mathbb{M} 49'45	
	346 Nov 08 j 06:48	0° \mathbb{H}					
asc. node	346 Dec 24 j 20:54	26° \mathbb{H} 39'52		conjunction	351 Nov 13 j 08:16	21° \mathbb{M} 31'49	0°-17'-1
	346 Dec 30 j 07:42	0° \mathbb{Y}		minimum elong	351 Nov 13 j 07:20	21° \mathbb{M} 30'05	0°17'02
	347 Feb 16 j 06:09	0° \mathbb{B}			351 Nov 24 j 16:40	0° \mathbb{J}	
	347 Apr 04 j 18:51	0° \mathbb{I}			352 Jan 02 j 23:15	0° \mathbb{Z}	
	347 May 22 j 12:40	0° \mathbb{G}		morning rise	352 Jan 10 j 16:13	5° \mathbb{Z} 59'07	
evening set	347 Jul 06 j 14:44	28° \mathbb{G} 22'57			352 Feb 10 j 09:29	0° \approx	
	347 Jul 09 j 04:05	0° \mathbb{Q}			352 Mar 19 j 19:44	0° \mathbb{H}	
max. Earth dist.	347 Aug 09 j 15:03	20° \mathbb{Q} 02'00	2.66065 AU		352 Apr 28 j 03:36	0° \mathbb{Y}	
					352 Jun 08 j 08:47	0° \mathbb{B}	
conjunction	347 Aug 21 j 09:15	27° \mathbb{Q} 35'55	1°04'59		352 Jul 22 j 18:22	0° \mathbb{I}	
minimum elong	347 Aug 21 j 10:00	27° \mathbb{Q} 37'09	1°04'58	asc. node	352 Aug 15 j 17:56	14° \mathbb{I} 53'30	
	347 Aug 25 j 02:25	0° \mathbb{M}			352 Sep 11 j 12:26	0° \mathbb{G}	
morning rise	347 Oct 05 j 04:30	26° \mathbb{M} 56'05		retrograde	352 Nov 23 j 21:20	23° \mathbb{G} 52'13	
	347 Oct 09 j 18:58	0° \mathbb{L}		min. Earth dist.	353 Jan 01 j 13:28	14° \mathbb{G} 37'25	0.66789 AU
	347 Nov 22 j 23:55	0° \mathbb{M}		opposition	353 Jan 03 j 01:51	14° \mathbb{G} 00'57	4°14'55
	348 Jan 04 j 18:37	0° \mathbb{J}		greatest brilliancy	353 Jan 02 j 17:12	14° \mathbb{G} 09'38	-1.3m
desc. node	348 Jan 12 j 11:08	5° \mathbb{J} 29'20		direct	353 Feb 12 j 04:12	4° \mathbb{G} 25'33	
	348 Feb 15 j 09:03	0° \mathbb{Z}			353 May 03 j 11:00	0° \mathbb{Q}	
	348 Mar 27 j 07:50	0° \approx			353 Jun 26 j 02:44	0° \mathbb{M}	
	348 May 07 j 16:41	0° \mathbb{H}			353 Aug 12 j 07:00	0° \mathbb{L}	
	348 Jun 21 j 03:32	0° \mathbb{Y}		desc. node	353 Sep 03 j 08:34	14° \mathbb{L} 59'07	
	348 Aug 28 j 08:51	0° \mathbb{B}			353 Sep 24 j 16:10	0° \mathbb{M}	
retrograde	348 Sep 07 j 09:34	0° \mathbb{B} 43'28			353 Nov 04 j 08:56	0° \mathbb{J}	
	348 Sep 17 j 05:43	30° \mathbb{R} \mathbb{Y}		evening set	353 Nov 12 j 12:14	6° \mathbb{J} 11'01	
min. Earth dist.	348 Oct 06 j 10:49	24° \mathbb{Y} 54'54	0.48358 AU		353 Dec 13 j 07:11	0° \mathbb{Z}	
opposition	348 Oct 14 j 11:24	22° \mathbb{Y} 00'20	-1°-26'-15	max. Earth dist.	354 Jan 09 j 13:03	21° \mathbb{Z} 26'03	2.37195 AU
greatest brilliancy	348 Oct 13 j 20:22	22° \mathbb{Y} 13'59	-2.2m				
asc. node	348 Nov 10 j 19:39	15° \mathbb{Y} 10'56		conjunction	354 Jan 14 j 11:25	25° \mathbb{Z} 19'50	-1°-3'-57
direct	348 Nov 16 j 23:30	14° \mathbb{Y} 55'30		minimum elong	354 Jan 14 j 10:15	25° \mathbb{Z} 17'32	1°03'59
	349 Jan 11 j 22:06	0° \mathbb{B}			354 Jan 20 j 09:17	0° \approx	
	349 Mar 10 j 17:58	0° \mathbb{I}			354 Feb 27 j 13:35	0° \mathbb{H}	
	349 May 01 j 03:56	0° \mathbb{G}		morning rise	354 Mar 25 j 14:44	20° \mathbb{H} 05'00	
	349 Jun 19 j 09:34	0° \mathbb{Q}			354 Apr 07 j 17:04	0° \mathbb{Y}	
	349 Aug 05 j 20:03	0° \mathbb{M}			354 May 18 j 14:18	0° \mathbb{B}	
evening set	349 Aug 12 j 03:28	4° \mathbb{M} 05'04			354 Jun 30 j 21:20	0° \mathbb{I}	

asc. node	354 Jul 03 j 15:46	1°♊51'12		359 Nov 15 j 23:04	0°♊	
	354 Aug 16 j 09:20	0°♊		359 Dec 26 j 04:49	0°♊	
	354 Oct 07 j 10:52	0°♊		360 Feb 05 j 06:59	0°♊	
retrograde	354 Dec 28 j 14:53	27°♊16'14		asc. node	360 Feb 23 j 13:16	12°♊59'45
opposition	355 Feb 06 j 03:52	17°♊56'23	4°32'17		360 Mar 18 j 22:36	0°♊
greatest brilliancy	355 Feb 06 j 14:25	17°♊45'57	-1.2m		360 May 02 j 08:42	0°♊
min. Earth dist.	355 Feb 08 j 12:51	17°♊00'06	0.66872 AU	evening set	360 May 12 j 12:47	6°♊43'03
direct	355 Mar 19 j 11:35	7°♊56'28			360 Jun 17 j 07:15	0°♊
	355 May 30 j 04:51	0°♊				
	355 Jul 21 j 11:28	0°♊		conjunction	360 Jun 30 j 18:33	8°♊39'46 1°00'54
desc. node	355 Jul 22 j 07:13	0°♊31'13		minimum elong	360 Jun 30 j 17:27	8°♊38'01 1°00'54
	355 Sep 04 j 06:36	0°♊		max. Earth dist.	360 Jul 08 j 00:26	13°♊18'18 2.66255 AU
	355 Oct 15 j 08:43	0°♊			360 Aug 03 j 04:33	0°♊
	355 Nov 23 j 08:20	0°♊		morning rise	360 Aug 15 j 18:15	7°♊59'32
greatest brilliancy	355 Dec 19 j 11:51	20°♊34'09	1.2m		360 Sep 19 j 10:02	0°♊
	355 Dec 31 j 10:28	0°♊			360 Nov 05 j 15:46	0°♊
evening set	356 Jan 20 j 01:46	15°♊27'57			360 Dec 23 j 02:14	0°♊
	356 Feb 07 j 16:23	0°♊			361 Feb 09 j 16:25	0°♊
	356 Mar 17 j 23:32	0°♊		desc. node	361 Mar 13 j 04:06	18°♊21'06
					361 Apr 04 j 00:43	0°♊
conjunction	356 Mar 26 j 04:32	6°♊07'04	0°-33'-41	retrograde	361 Jun 07 j 03:39	19°♊37'13
minimum elong	356 Mar 26 j 06:54	6°♊11'27	0°33'40	opposition	361 Jul 07 j 06:30	14°♊38'47 -6°-21'-16
	356 Apr 28 j 00:25	0°♊		greatest brilliancy	361 Jul 07 j 21:01	14°♊29'07 -2.8m
max. Earth dist.	356 May 10 j 11:54	8°♊49'48	2.48498 AU	min. Earth dist.	361 Jul 09 j 11:03	14°♊03'49 0.37799 AU
asc. node	356 May 20 j 15:15	15°♊54'28		direct	361 Aug 06 j 19:50	9°♊26'56
morning rise	356 May 26 j 05:59	19°♊47'17			361 Oct 08 j 06:28	0°♊
	356 Jun 10 j 04:59	0°♊			361 Nov 26 j 12:55	0°♊
	356 Jul 25 j 17:24	0°♊		asc. node	362 Jan 10 j 11:56	29°♊38'28
	356 Sep 11 j 20:25	0°♊			362 Jan 11 j 00:54	0°♊
	356 Nov 03 j 04:49	0°♊			362 Feb 25 j 10:25	0°♊
	357 Jan 14 j 10:39	0°♊			362 Apr 12 j 15:45	0°♊
retrograde	357 Feb 04 j 06:48	2°♊25'09			362 May 29 j 16:27	0°♊
	357 Feb 23 j 19:36	30°♊		evening set	362 Jun 21 j 22:56	14°♊45'01
opposition	357 Mar 14 j 00:58	24°♊00'32	3°21'32		362 Jul 15 j 23:58	0°♊
greatest brilliancy	357 Mar 15 j 01:37	23°♊37'04	-1.5m	max. Earth dist.	362 Jul 31 j 13:26	9°♊54'07 2.67185 AU
min. Earth dist.	357 Mar 20 j 04:33	21°♊40'26	0.60385 AU			
direct	357 Apr 23 j 23:14	14°♊10'34		conjunction	362 Aug 07 j 02:54	14°♊05'27 1°09'02
desc. node	357 Jun 08 j 05:21	24°♊58'26		minimum elong	362 Aug 07 j 03:10	14°♊05'53 1°09'01
	357 Jun 19 j 07:50	0°♊			362 Aug 31 j 21:43	0°♊
	357 Aug 10 j 04:08	0°♊		morning rise	362 Sep 20 j 15:38	12°♊48'09
	357 Sep 22 j 05:21	0°♊			362 Oct 16 j 20:29	0°♊
	357 Nov 01 j 00:33	0°♊			362 Nov 30 j 14:53	0°♊
	357 Dec 09 j 14:53	0°♊			363 Jan 13 j 06:11	0°♊
	358 Jan 17 j 08:15	0°♊		desc. node	363 Jan 29 j 02:52	11°♊04'14
	358 Feb 26 j 03:50	0°♊			363 Feb 25 j 00:42	0°♊
evening set	358 Mar 25 j 04:30	19°♊40'18			363 Apr 08 j 13:48	0°♊
asc. node	358 Apr 07 j 15:02	29°♊13'56			363 May 22 j 17:28	0°♊
	358 Apr 08 j 17:10	0°♊			363 Jul 16 j 14:44	0°♊
				retrograde	363 Aug 18 j 15:23	7°♊02'49
conjunction	358 May 20 j 07:49	28°♊40'55	0°25'12	min. Earth dist.	363 Sep 14 j 19:05	2°♊04'04 0.43281 AU
minimum elong	358 May 20 j 06:38	28°♊38'55	0°25'11	greatest brilliancy	363 Sep 21 j 06:40	29°♊55'42 -2.5m
	358 May 22 j 06:46	0°♊			363 Sep 21 j 01:32	30°♊
max. Earth dist.	358 Jun 13 j 16:34	14°♊55'49	2.59887 AU	opposition	363 Sep 22 j 14:54	29°♊28'52 -3°-42'-28
	358 Jul 06 j 17:56	0°♊		direct	363 Oct 24 j 07:47	23°♊18'00
morning rise	358 Jul 10 j 06:39	2°♊17'01			363 Nov 27 j 17:40	0°♊
	358 Aug 22 j 18:55	0°♊		asc. node	363 Nov 28 j 12:01	0°♊16'09
	358 Oct 10 j 06:26	0°♊			364 Jan 29 j 02:09	0°♊
	358 Nov 29 j 23:55	0°♊			364 Mar 20 j 14:01	0°♊
	359 Jan 26 j 19:32	0°♊			364 May 09 j 02:04	0°♊
retrograde	359 Mar 26 j 10:27	15°♊36'29			364 Jun 26 j 13:02	0°♊
desc. node	359 Apr 26 j 04:39	9°♊58'38		evening set	364 Jul 28 j 09:04	20°♊08'15
opposition	359 Apr 29 j 18:04	8°♊47'14	0°-11'-21		364 Aug 12 j 17:15	0°♊
greatest brilliancy	359 Feb 20 j 14:08	9°♊37'05	-2.8m	max. Earth dist.	364 Aug 23 j 14:42	7°♊04'36 2.62733 AU
min. Earth dist.	359 May 08 j 06:46	5°♊53'35	0.48366 AU			
direct	359 Jun 06 j 12:58	0°♊24'49		conjunction	364 Sep 12 j 09:22	20°♊05'27 0°50'26
	359 Aug 22 j 21:16	0°♊		minimum elong	364 Sep 12 j 10:36	20°♊07'29 0°50'24
	359 Oct 06 j 05:00	0°♊			364 Sep 27 j 05:11	0°♊

morning rise	364 Oct 28 j 18:06	21°♄33'00			369 Aug 25 j 03:45	0°♄	
	364 Nov 09 j 20:40	0°♄			369 Oct 20 j 12:48	0°♄	
desc. node	364 Dec 16 j 02:34	25°♄52'58		retrograde	369 Dec 14 j 22:48	14°♄31'46	
	364 Dec 21 j 18:24	0°♄		opposition	370 Jan 23 j 21:07	4°♄56'58	4°35'03
	365 Jan 31 j 06:37	0°♄		greatest brilliancy	370 Jan 23 j 23:52	4°♄54'13	-1.2m
	365 Mar 11 j 22:25	0°♄		min. Earth dist.	370 Jan 24 j 17:37	4°♄36'34	0.67625 AU
	365 Apr 20 j 14:00	0°♄			370 Feb 05 j 23:01	30°♄	
	365 May 31 j 13:06	0°♄		direct	370 Mar 05 j 21:25	25°♄03'22	
	365 Jul 15 j 13:15	0°♄			370 Apr 05 j 11:18	0°♄	
	365 Sep 21 j 05:25	0°♄			370 Jun 10 j 18:08	0°♄	
retrograde	365 Oct 04 j 19:24	1°♄15'23			370 Jul 30 j 03:49	0°♄	
asc. node	365 Oct 15 j 10:18	0°♄26'28		desc. node	370 Aug 07 j 23:05	5°♄46'29	
	365 Oct 17 j 23:48	30°♄			370 Sep 12 j 05:04	0°♄	
min. Earth dist.	365 Nov 06 j 04:10	24°♄10'35	0.56078 AU		370 Oct 23 j 01:43	0°♄	
opposition	365 Nov 12 j 19:35	21°♄35'38	1°17'34		370 Nov 30 j 23:48	0°♄	
greatest brilliancy	365 Nov 12 j 07:29	21°♄47'24	-1.8m	evening set	370 Dec 22 j 23:24	17°♄18'00	
direct	365 Dec 18 j 22:49	13°♄24'48			371 Jan 08 j 01:02	0°♄	
	366 Feb 17 j 10:36	0°♄			371 Feb 15 j 05:25	0°♄	
	366 Apr 16 j 14:55	0°♄					
	366 Jun 06 j 22:31	0°♄		conjunction	371 Feb 28 j 10:18	10°♄13'23	0°-54'-38
	366 Jul 25 j 03:33	0°♄		minimum elong	371 Feb 28 j 13:11	10°♄18'55	0°54'37
evening set	366 Sep 05 j 12:09	27°♄48'22			371 Mar 26 j 10:10	0°♄	
	366 Sep 08 j 18:11	0°♄		max. Earth dist.	371 Apr 20 j 13:37	18°♄36'30	2.43144 AU
max. Earth dist.	366 Sep 22 j 02:52	9°♄06'43	2.53295 AU	morning rise	371 May 05 j 12:17	29°♄24'15	
	366 Oct 21 j 22:36	0°♄			371 May 06 j 08:16	0°♄	
				asc. node	371 Jun 07 j 08:03	22°♄24'21	
conjunction	366 Oct 24 j 18:30	2°♄01'18	0°05'50		371 Jun 18 j 11:42	0°♄	
minimum elong	366 Oct 24 j 18:47	2°♄01'48	0°05'50		371 Aug 03 j 04:50	0°♄	
behind sun begin	366 Oct 23 j 22:28	1°♄25'28			371 Sep 21 j 05:50	0°♄	
behind sun end	366 Oct 25 j 15:07	2°♄38'10			371 Nov 16 j 09:50	0°♄	
desc. node	366 Nov 03 j 01:43	8°♄42'47		retrograde	372 Jan 20 j 09:39	18°♄24'09	
	366 Dec 02 j 00:43	0°♄		opposition	372 Feb 28 j 00:22	9°♄34'26	4°01'16
morning rise	366 Dec 17 j 02:57	11°♄20'33		greatest brilliancy	372 Feb 28 j 21:21	9°♄14'05	-1.4m
	367 Jan 10 j 13:20	0°♄		min. Earth dist.	372 Mar 03 j 17:36	7°♄44'48	0.63687 AU
	367 Feb 18 j 04:58	0°♄			372 Apr 01 j 06:39	30°♄	
	367 Mar 28 j 19:33	0°♄		direct	372 Apr 09 j 08:10	29°♄34'51	
	367 May 07 j 07:49	0°♄			372 Apr 17 j 14:43	0°♄	
	367 Jun 17 j 21:25	0°♄		desc. node	372 Jun 24 j 21:53	25°♄08'47	
	367 Aug 02 j 09:34	0°♄			372 Jul 03 j 14:22	0°♄	
asc. node	367 Sep 02 j 08:46	17°♄50'54			372 Aug 20 j 02:21	0°♄	
	367 Sep 27 j 20:19	0°♄			372 Oct 01 j 01:08	0°♄	
retrograde	367 Nov 11 j 09:38	10°♄33'34			372 Nov 09 j 09:26	0°♄	
min. Earth dist.	367 Dec 18 j 12:51	1°♄49'12	0.64974 AU		372 Dec 17 j 16:50	0°♄	
opposition	367 Dec 21 j 13:16	0°♄36'38	3°46'09		373 Jan 25 j 03:51	0°♄	
greatest brilliancy	367 Dec 20 j 22:58	0°♄50'59	-1.4m	evening set	373 Mar 01 j 20:54	27°♄08'27	
	367 Dec 23 j 01:56	30°♄			373 Mar 05 j 16:57	0°♄	
direct	368 Jan 29 j 19:33	21°♄18'03			373 Apr 15 j 23:51	0°♄	
	368 Mar 11 j 20:34	0°♄		asc. node	373 Apr 24 j 06:28	5°♄50'26	
	368 May 14 j 03:48	0°♄					
	368 Jul 04 j 06:40	0°♄		conjunction	373 Apr 30 j 21:47	10°♄29'05	0°04'08
	368 Aug 19 j 18:11	0°♄		minimum elong	373 Apr 30 j 21:33	10°♄28'41	0°04'08
desc. node	368 Sep 20 j 00:18	21°♄29'44		behind sun begin	373 Apr 29 j 22:27	9°♄48'25	
	368 Oct 01 j 23:31	0°♄		behind sun end	373 May 01 j 20:40	11°♄08'54	
evening set	368 Oct 21 j 07:14	14°♄01'59			373 May 29 j 08:24	0°♄	
max. Earth dist.	368 Nov 10 j 17:52	29°♄15'47	2.40671 AU	max. Earth dist.	373 Jun 02 j 01:48	2°♄30'43	2.55979 AU
	368 Nov 11 j 17:19	0°♄		morning rise	373 Jun 24 j 01:59	17°♄09'44	
					373 Jul 13 j 17:58	0°♄	
conjunction	368 Dec 18 j 08:50	28°♄07'59	0°-51'-17		373 Aug 30 j 01:05	0°♄	
minimum elong	368 Dec 18 j 06:19	28°♄03'06	0°51'17		373 Oct 18 j 11:47	0°♄	
	368 Dec 20 j 18:20	0°♄			373 Dec 11 j 08:15	0°♄	
	369 Jan 27 j 22:55	0°♄		retrograde	374 Mar 04 j 18:18	27°♄24'09	
morning rise	369 Feb 23 j 14:02	20°♄56'23		opposition	374 Apr 09 j 16:47	19°♄51'07	1°34'27
	369 Mar 07 j 04:33	0°♄		greatest brilliancy	374 Apr 10 j 10:40	19°♄34'58	-1.9m
	369 Apr 15 j 08:21	0°♄		min. Earth dist.	374 Apr 17 j 17:14	16°♄58'00	0.53543 AU
	369 May 26 j 06:10	0°♄		desc. node	374 May 12 j 20:14	10°♄56'22	
	369 Jul 08 j 18:16	0°♄		direct	374 May 19 j 04:49	10°♄39'57	
asc. node	369 Jul 20 j 08:46	7°♄37'53			374 Jul 19 j 09:36	0°♄	

	374 Sep 05 j 13:34	0°♊		minimum elong	379 Aug 29 j 16:19	5°♎56'47	1°00'46
	374 Oct 17 j 01:23	0°♋			379 Oct 05 j 03:14	0°♌	
	374 Nov 25 j 13:41	0°♍		morning rise	379 Oct 13 j 19:35	5°♌49'48	
	375 Jan 03 j 23:32	0°♎			379 Nov 18 j 03:22	0°♍	
	375 Feb 13 j 09:47	0°♏			379 Dec 30 j 14:04	0°♊	
asc. node	375 Mar 12 j 05:45	19°♏16'29		desc. node	380 Jan 02 j 18:19	2°♊17'08	
	375 Mar 27 j 12:06	0°♐			380 Feb 09 j 18:12	0°♋	
evening set	375 Apr 25 j 19:11	20°♐06'57			380 Mar 21 j 03:43	0°♍	
	375 May 10 j 12:01	0°♑			380 Apr 30 j 17:00	0°♎	
					380 Jun 12 j 06:59	0°♏	
conjunction	375 Jun 16 j 04:41	24°♑10'16	0°50'22		380 Aug 02 j 02:43	0°♐	
minimum elong	375 Jun 16 j 03:16	24°♑07'57	0°50'23	retrograde	380 Sep 17 j 21:46	12°♐51'35	
	375 Jun 25 j 04:21	0°♑		min. Earth dist.	380 Oct 18 j 03:01	6°♐35'29	0.51187 AU
max. Earth dist.	375 Jun 29 j 16:56	2°♑55'22	2.64409 AU	opposition	380 Oct 25 j 20:00	3°♐42'25	0°-18'-54
morning rise	375 Aug 02 j 15:11	24°♑39'04		greatest brilliancy	380 Oct 25 j 18:02	3°♐44'16	-2.1m
	375 Aug 11 j 01:13	0°♒		asc. node	380 Nov 01 j 02:33	1°♐26'23	
	375 Sep 27 j 14:47	0°♓			380 Nov 05 j 12:18	30°♓	
	375 Nov 14 j 18:54	0°♈		direct	380 Nov 29 j 07:34	26°♏11'44	
	376 Jan 03 j 08:54	0°♉			380 Dec 25 j 02:44	0°♐	
	376 Feb 26 j 19:08	0°♊			381 Mar 03 j 12:05	0°♑	
desc. node	376 Mar 29 j 20:21	13°♊56'16			381 Apr 25 j 14:37	0°♑	
retrograde	376 May 06 j 06:22	21°♊22'19			381 Jun 14 j 11:28	0°♒	
opposition	376 Jun 06 j 17:16	15°♊51'55	-4°-4'-3		381 Aug 01 j 04:16	0°♓	
greatest brilliancy	376 Jun 07 j 22:51	15°♊30'09	-2.6m	evening set	381 Aug 20 j 19:09	12°♓45'14	
min. Earth dist.	376 Jun 13 j 02:48	13°♊59'38	0.40724 AU	max. Earth dist.	381 Sep 09 j 13:51	25°♓52'57	2.57524 AU
direct	376 Jul 10 j 03:28	9°♊28'45			381 Sep 15 j 16:37	0°♈	
	376 Sep 09 j 10:25	0°♋					
	376 Oct 26 j 19:55	0°♍		conjunction	381 Oct 07 j 06:53	14°♈46'09	0°25'58
	376 Dec 09 j 00:09	0°♎		minimum elong	381 Oct 07 j 07:52	14°♈47'51	0°25'56
	377 Jan 20 j 22:45	0°♏			381 Oct 29 j 00:24	0°♉	
asc. node	377 Jan 27 j 04:13	4°♏18'19		desc. node	381 Nov 19 j 17:22	15°♉35'07	
	377 Mar 05 j 21:21	0°♐		morning rise	381 Nov 26 j 01:17	20°♉11'53	
	377 Apr 20 j 05:06	0°♑			381 Dec 09 j 08:56	0°♊	
	377 Jun 05 j 16:55	0°♒			382 Jan 18 j 05:15	0°♋	
evening set	377 Jun 06 j 20:46	0°♒44'30			382 Feb 26 j 04:28	0°♍	
max. Earth dist.	377 Jul 22 j 11:54	29°♒48'59	2.67485 AU		382 Apr 06 j 01:59	0°♎	
	377 Jul 22 j 18:50	0°♓			382 May 15 j 22:27	0°♏	
					382 Jun 27 j 04:23	0°♐	
conjunction	377 Jul 23 j 20:20	0°♓40'36	1°09'03		382 Aug 13 j 22:36	0°♑	
minimum elong	377 Jul 23 j 20:03	0°♓40'08	1°09'04	asc. node	382 Sep 19 j 02:00	17°♑41'53	
morning rise	377 Sep 06 j 13:49	29°♓14'47		retrograde	382 Oct 28 j 11:08	26°♑26'08	
	377 Sep 07 j 17:59	0°♓		min. Earth dist.	382 Dec 02 j 20:37	18°♑16'53	0.62170 AU
	377 Oct 24 j 02:01	0°♈		opposition	382 Dec 07 j 08:38	16°♑29'13	3°02'48
	377 Dec 08 j 15:06	0°♉		greatest brilliancy	382 Dec 06 j 15:14	16°♑46'35	-1.5m
	378 Jan 22 j 12:31	0°♊		direct	383 Jan 14 j 13:38	7°♑32'26	
desc. node	378 Feb 14 j 20:10	15°♊40'02			383 Mar 29 j 10:42	0°♒	
	378 Mar 08 j 05:24	0°♋			383 May 24 j 08:20	0°♓	
	378 Apr 23 j 03:00	0°♍			383 Jul 12 j 23:17	0°♓	
	378 Jun 16 j 15:43	0°♎			383 Aug 28 j 00:11	0°♏	
retrograde	378 Jul 24 j 22:14	8°♎57'32		evening set	383 Oct 02 j 16:00	24°♏39'04	
min. Earth dist.	378 Aug 20 j 12:46	4°♎30'56	0.39160 AU	desc. node	383 Oct 07 j 16:29	28°♏13'16	
greatest brilliancy	378 Aug 24 j 21:57	3°♎14'47	-2.8m		383 Oct 10 j 04:13	0°♐	
opposition	378 Aug 26 j 06:20	2°♎51'12	-5°-56'-59	max. Earth dist.	383 Oct 17 j 09:55	5°♐12'27	2.45664 AU
	378 Sep 05 j 19:36	30°♏			383 Nov 20 j 00:25	0°♊	
direct	378 Sep 25 j 05:38	27°♏34'27					
	378 Oct 15 j 00:00	0°♋		conjunction	383 Nov 25 j 11:39	4°♊07'22	0°-30'-17
asc. node	378 Dec 15 j 02:49	26°♋32'47		minimum elong	383 Nov 25 j 09:56	4°♊04'08	0°30'17
	378 Dec 21 j 06:55	0°♌			383 Dec 29 j 05:05	0°♋	
	379 Feb 09 j 18:21	0°♍		morning rise	384 Jan 26 j 01:04	21°♋45'17	
	379 Mar 30 j 08:16	0°♎			384 Feb 05 j 13:00	0°♍	
	379 May 17 j 14:31	0°♏		greatest brilliancy	384 Feb 12 j 21:55	5°♍47'31	1.2m
	379 Jul 04 j 12:08	0°♐			384 Mar 14 j 20:53	0°♎	
evening set	379 Jul 14 j 22:07	6°♐35'07			384 Apr 23 j 02:19	0°♏	
max. Earth dist.	379 Aug 15 j 01:11	26°♐28'14	2.65105 AU		384 Jun 03 j 03:09	0°♐	
	379 Aug 20 j 12:24	0°♑			384 Jul 17 j 01:30	0°♑	
				asc. node	384 Aug 06 j 00:13	12°♑43'59	
conjunction	379 Aug 29 j 15:20	5°♑55'10	1°00'47		384 Sep 04 j 02:02	0°♒	

	384 Nov 14 j 09:55	0°♈			389 Oct 26 j 12:04	0°♊		
retrograde	384 Dec 01 j 13:25	1°♈45'33			389 Dec 04 j 08:10	0°♊		
	384 Dec 17 j 20:08	30°♈♊			390 Jan 12 j 05:39	0°♋		
opposition	385 Jan 10 j 17:07	21°♊59'18	4°25'52		390 Feb 21 j 04:57	0°♌		
min. Earth dist.	385 Jan 10 j 01:14	22°♊15'11	0.67365 AU	asc. node	390 Mar 28 j 20:43	25°♌44'31		
greatest brilliancy	385 Jan 10 j 12:20	22°♊04'05	-1.2m		390 Apr 03 j 21:35	0°♍		
direct	385 Feb 20 j 04:47	12°♊16'17		evening set	390 Apr 06 j 07:30	1°♍41'40		
	385 Apr 25 j 01:13	0°♈			390 May 17 j 13:42	0°♎		
	385 Jun 20 j 08:40	0°♏						
	385 Aug 07 j 05:10	0°♐		conjunction	390 May 30 j 12:56	8°♎39'51	0°35'40	
desc. node	385 Aug 24 j 15:00	11°♐41'25		minimum elong	390 May 30 j 11:31	8°♎37'30	0°35'38	
	385 Sep 19 j 20:07	0°♑		max. Earth dist.	390 Jun 19 j 20:11	22°♎02'22	2.61742 AU	
	385 Oct 30 j 14:34	0°♒			390 Jul 02 j 01:41	0°♏		
evening set	385 Nov 26 j 08:04	20°♒29'15		morning rise	390 Jul 19 j 00:34	10°♏55'37		
	385 Dec 08 j 13:04	0°♊			390 Aug 18 j 00:07	0°♈		
	386 Jan 15 j 14:49	0°♋			390 Oct 05 j 01:38	0°♏		
					390 Nov 23 j 15:12	0°♐		
conjunction	386 Jan 30 j 15:12	11°♋51'16	-1°-4'-55		391 Jan 16 j 02:53	0°♑		
minimum elong	386 Jan 30 j 15:48	11°♋52'26	1°04'57	retrograde	391 Apr 09 j 07:25	27°♑39'49		
	386 Feb 22 j 18:37	0°♋		desc. node	391 Apr 16 j 12:19	27°♑20'13		
max. Earth dist.	386 Mar 11 j 22:05	13°♋16'21	2.38220 AU	opposition	391 May 12 j 13:41	21°♑17'51	-1°-27'-42	
	386 Apr 02 j 21:41	0°♌		greatest brilliancy	391 May 13 j 06:13	21°♑04'23	-2.3m	
morning rise	386 Apr 10 j 08:22	5°♌34'43		min. Earth dist.	391 May 20 j 20:17	18°♑36'17	0.45486 AU	
	386 May 13 j 17:57	0°♍		direct	391 Jun 18 j 01:12	13°♑32'01		
asc. node	386 Jun 23 j 23:30	28°♍41'47			391 Aug 11 j 01:16	0°♒		
	386 Jun 25 j 21:52	0°♎			391 Sep 28 j 09:10	0°♊		
	386 Aug 11 j 00:00	0°♏			391 Nov 09 j 09:51	0°♋		
	386 Sep 30 j 13:37	0°♈			391 Dec 20 j 08:00	0°♋		
	386 Dec 05 j 15:09	0°♏			392 Jan 30 j 21:21	0°♌		
retrograde	387 Jan 05 j 16:22	5°♏07'38		asc. node	392 Feb 13 j 19:44	9°♌50'56		
	387 Feb 03 j 03:54	30°♏♎			392 Mar 13 j 21:06	0°♍		
opposition	387 Feb 13 j 22:56	25°♎57'28	4°24'49		392 Apr 27 j 12:59	0°♎		
greatest brilliancy	387 Feb 14 j 13:38	25°♎43'02	-1.3m	evening set	392 May 22 j 01:45	16°♎03'47		
min. Earth dist.	387 Feb 17 j 04:31	24°♎41'20	0.66008 AU		392 Jun 12 j 15:06	0°♏		
direct	387 Mar 27 j 08:40	15°♎55'59						
	387 May 20 j 18:27	0°♏		conjunction	392 Jul 09 j 08:30	17°♏07'19	1°05'06	
desc. node	387 Jul 12 j 13:47	28°♏17'18		minimum elong	392 Jul 09 j 07:40	17°♏05'59	1°05'06	
	387 Jul 15 j 08:54	0°♐		max. Earth dist.	392 Jul 13 j 09:36	19°♏42'14	2.66930 AU	
	387 Aug 29 j 22:19	0°♑			392 Jul 29 j 13:24	0°♈		
	387 Oct 10 j 06:44	0°♒		morning rise	392 Aug 23 j 17:56	16°♈02'01		
	387 Nov 18 j 09:08	0°♊			392 Sep 14 j 15:53	0°♏		
	387 Dec 26 j 12:49	0°♋			392 Oct 31 j 12:34	0°♐		
	388 Feb 02 j 19:58	0°♋			392 Dec 17 j 03:28	0°♑		
evening set	388 Feb 04 j 18:33	1°♋30'14			393 Feb 02 j 00:01	0°♒		
	388 Mar 13 j 04:31	0°♌		desc. node	393 Mar 03 j 11:26	18°♒27'14		
					393 Mar 22 j 13:23	0°♊		
conjunction	388 Apr 08 j 22:49	19°♌42'21	0°-19'-50		393 May 20 j 01:20	0°♋		
minimum elong	388 Apr 09 j 00:12	19°♌44'51	0°19'50	retrograde	393 Jun 25 j 04:54	7°♋35'50		
	388 Apr 23 j 06:35	0°♍		opposition	393 Jul 25 j 15:01	2°♋30'46	-6°-52'-52	
asc. node	388 May 10 j 23:00	12°♍27'59		greatest brilliancy	393 Jul 25 j 10:21	2°♋33'53	-2.9m	
max. Earth dist.	388 May 19 j 11:48	18°♍23'21	2.51337 AU	min. Earth dist.	393 Jul 24 j 16:48	2°♋45'35	0.37421 AU	
	388 Jun 05 j 11:18	0°♎			393 Aug 04 j 13:57	30°♒♊		
morning rise	388 Jun 06 j 07:00	0°♎33'19		direct	393 Aug 24 j 09:06	27°♊34'36		
	388 Jul 20 j 21:09	0°♏			393 Sep 12 j 18:23	0°♋		
	388 Sep 06 j 14:26	0°♈			393 Nov 16 j 18:25	0°♋		
	388 Oct 27 j 13:35	0°♏		asc. node	393 Dec 31 j 19:43	27°♋57'13		
	388 Dec 27 j 03:41	0°♐			394 Jan 04 j 00:31	0°♌		
retrograde	389 Feb 13 j 23:18	11°♐19'29			394 Feb 19 j 15:06	0°♍		
opposition	389 Mar 23 j 04:16	3°♐11'08	2°49'21		394 Apr 07 j 11:44	0°♎		
greatest brilliancy	389 Mar 24 j 04:46	2°♐48'10	-1.6m		394 May 24 j 20:54	0°♏		
min. Earth dist.	389 Mar 30 j 02:09	0°♐36'04	0.58179 AU	evening set	394 Jun 30 j 09:42	23°♏03'45		
	389 Mar 31 j 17:44	30°♒♏			394 Jul 11 j 08:42	0°♈		
direct	389 May 02 j 18:02	23°♏30'42		max. Earth dist.	394 Aug 05 j 21:31	16°♈15'03	2.66677 AU	
desc. node	389 May 29 j 13:27	27°♏45'43						
	389 Jun 05 j 11:06	0°♐		conjunction	394 Aug 15 j 06:54	22°♈16'07	1°07'08	
	389 Aug 03 j 01:25	0°♑		minimum elong	394 Aug 15 j 07:28	22°♈17'02	1°07'08	
	389 Sep 16 j 06:20	0°♒			394 Aug 27 j 07:05	0°♏		

morning rise	394 Sep 28 j 21:38	21° \mathbb{M} 15'19		retrograde	399 Nov 19 j 04:05	18° \mathfrak{G} 42'11	
	394 Oct 12 j 02:58	0° \mathfrak{L}		min. Earth dist.	399 Dec 27 j 04:39	9° \mathfrak{G} 40'21	0.66101 AU
	394 Nov 25 j 14:24	0° \mathbb{M}		opposition	399 Dec 29 j 08:57	8° \mathfrak{G} 47'57	4°04'34
	395 Jan 07 j 18:10	0° \mathfrak{Z}		greatest brilliancy	399 Dec 28 j 21:33	8° \mathfrak{G} 59'23	-1.3m
desc. node	395 Jan 19 j 10:33	8° \mathfrak{Z} 15'41			400 Jan 27 j 19:37	30° \mathbb{R} \mathbb{I}	
	395 Feb 18 j 20:15	0° \mathfrak{Z}		direct	400 Feb 07 j 03:04	29° \mathbb{I} 19'24	
	395 Apr 01 j 09:18	0° \approx			400 Feb 17 j 20:07	0° \mathfrak{G}	
	395 May 13 j 15:35	0° \mathfrak{H}			400 May 07 j 10:34	0° \mathbb{O}	
	395 Jun 29 j 10:39	0° \mathbb{Y}			400 Jun 28 j 23:06	0° \mathbb{M}	
retrograde	395 Aug 30 j 18:52	21° \mathbb{Y} 24'03			400 Aug 14 j 21:14	0° \mathfrak{L}	
min. Earth dist.	395 Sep 27 j 22:29	15° \mathbb{Y} 58'46	0.46035 AU	desc. node	400 Sep 10 j 07:54	18° \mathfrak{L} 02'38	
greatest brilliancy	395 Oct 05 j 01:46	13° \mathbb{Y} 28'58	-2.3m		400 Sep 27 j 06:06	0° \mathbb{M}	
opposition	395 Oct 06 j 01:19	13° \mathbb{Y} 08'17	-2°-22'-20	evening set	400 Nov 02 j 12:01	26° \mathbb{M} 36'14	
direct	395 Nov 07 j 17:26	6° \mathbb{Y} 26'44			400 Nov 07 j 00:12	0° \mathfrak{Z}	
asc. node	395 Nov 18 j 18:46	7° \mathbb{Y} 13'11		max. Earth dist.	400 Dec 04 j 03:18	20° \mathfrak{Z} 45'56	2.38302 AU
	396 Jan 19 j 21:53	0° \mathfrak{B}			400 Dec 16 j 00:11	0° \mathfrak{Z}	
	396 Mar 14 j 08:18	0° \mathbb{I}					
	396 May 03 j 20:14	0° \mathfrak{G}		conjunction	401 Jan 02 j 07:19	13° \mathfrak{Z} 33'59	0°-59'-58
	396 Jun 21 j 17:38	0° \mathbb{O}		minimum elong	401 Jan 02 j 05:15	13° \mathfrak{Z} 29'55	0°59'58
evening set	396 Aug 05 j 19:02	28° \mathbb{O} 31'28			401 Jan 23 j 03:27	0° \approx	
	396 Aug 08 j 01:58	0° \mathbb{M}			401 Mar 02 j 07:49	0° \mathfrak{H}	
max. Earth dist.	396 Aug 29 j 14:24	14° \mathbb{M} 01'29	2.61087 AU	morning rise	401 Mar 12 j 17:00	8° \mathfrak{H} 03'39	
					401 Apr 10 j 10:29	0° \mathbb{Y}	
conjunction	396 Sep 21 j 04:10	29° \mathbb{M} 02'39	0°42'33		401 May 21 j 06:40	0° \mathfrak{B}	
minimum elong	396 Sep 21 j 05:25	29° \mathbb{M} 04'44	0°42'32		401 Jul 03 j 13:48	0° \mathbb{I}	
	396 Sep 22 j 14:14	0° \mathfrak{L}		asc. node	401 Jul 10 j 15:07	4° \mathbb{I} 41'43	
	396 Nov 05 j 03:18	0° \mathbb{M}			401 Aug 19 j 07:38	0° \mathfrak{G}	
morning rise	396 Nov 07 j 11:57	1° \mathbb{M} 39'54			401 Oct 11 j 15:16	0° \mathbb{O}	
desc. node	396 Dec 06 j 09:19	22° \mathbb{M} 21'41		retrograde	401 Dec 22 j 17:22	22° \mathbb{O} 16'22	
	396 Dec 16 j 20:27	0° \mathfrak{Z}		opposition	402 Jan 31 j 11:36	12° \mathbb{O} 49'28	4°34'43
	397 Jan 26 j 02:47	0° \mathfrak{Z}		greatest brilliancy	402 Jan 31 j 18:43	12° \mathbb{O} 42'25	-1.2m
	397 Mar 06 j 12:02	0° \approx		min. Earth dist.	402 Feb 02 j 04:34	12° \mathbb{O} 08'53	0.67345 AU
	397 Apr 14 j 19:28	0° \mathfrak{H}		direct	402 Mar 13 j 17:06	2° \mathbb{O} 51'47	
	397 May 25 j 05:24	0° \mathbb{Y}			402 Jun 03 j 15:50	0° \mathbb{M}	
	397 Jul 07 j 18:24	0° \mathfrak{B}			402 Jul 24 j 15:18	0° \mathfrak{L}	
	397 Aug 30 j 08:10	0° \mathbb{I}		desc. node	402 Jul 29 j 06:45	2° \mathfrak{L} 59'05	
asc. node	397 Oct 05 j 17:09	10° \mathbb{I} 42'43			402 Sep 07 j 03:55	0° \mathbb{M}	
retrograde	397 Oct 13 j 17:50	11° \mathbb{I} 09'07			402 Oct 18 j 04:36	0° \mathfrak{Z}	
min. Earth dist.	397 Nov 16 j 05:23	3° \mathbb{I} 39'59	0.58469 AU		402 Nov 26 j 04:04	0° \mathfrak{Z}	
greatest brilliancy	397 Nov 21 j 11:32	1° \mathbb{I} 35'55	-1.7m		403 Jan 03 j 05:48	0° \approx	
opposition	397 Nov 22 j 03:40	1° \mathbb{I} 20'03	2°02'12	evening set	403 Jan 07 j 17:25	3° \approx 32'34	
	397 Nov 25 j 14:00	30° \mathbb{R} \mathfrak{B}			403 Feb 10 j 10:19	0° \mathfrak{H}	
direct	397 Dec 29 j 02:30	22° \mathfrak{B} 50'47					
	398 Feb 04 j 05:49	0° \mathbb{I}		conjunction	403 Mar 15 j 21:15	25° \mathfrak{H} 40'12	0°-43'-30
	398 Apr 10 j 02:09	0° \mathfrak{G}		minimum elong	403 Mar 16 j 00:08	25° \mathfrak{H} 45'38	0°43'29
	398 Jun 01 j 16:09	0° \mathbb{O}			403 Mar 21 j 15:17	0° \mathbb{Y}	
	398 Jul 20 j 07:56	0° \mathbb{M}			403 May 01 j 13:35	0° \mathfrak{B}	
	398 Sep 04 j 02:12	0° \mathfrak{L}		max. Earth dist.	403 May 03 j 11:51	1° \mathfrak{B} 22'36	2.46119 AU
evening set	398 Sep 14 j 23:32	7° \mathfrak{L} 24'18		morning rise	403 May 18 j 05:47	11° \mathfrak{B} 47'58	
max. Earth dist.	398 Sep 30 j 06:24	17° \mathfrak{L} 58'52	2.50669 AU	asc. node	403 May 28 j 13:57	18° \mathfrak{B} 59'30	
	398 Oct 17 j 06:47	0° \mathbb{M}			403 Jun 13 j 15:58	0° \mathbb{I}	
desc. node	398 Oct 24 j 08:18	5° \mathbb{M} 03'55			403 Jul 29 j 04:40	0° \mathfrak{G}	
					403 Sep 15 j 14:18	0° \mathbb{O}	
conjunction	398 Nov 04 j 14:33	13° \mathbb{M} 13'53	0°-7'-7		403 Nov 08 j 03:06	0° \mathbb{M}	
minimum elong	398 Nov 04 j 14:11	13° \mathbb{M} 13'13	0°07'08	retrograde	404 Jan 29 j 06:37	26° \mathbb{M} 45'11	
behind sun begin	398 Nov 03 j 17:48	12° \mathbb{M} 36'04		opposition	404 Mar 07 j 11:16	18° \mathbb{M} 08'46	3°40'07
behind sun end	398 Nov 05 j 10:33	13° \mathbb{M} 50'23		greatest brilliancy	404 Mar 08 j 10:41	17° \mathbb{M} 46'18	-1.5m
	398 Nov 27 j 07:00	0° \mathfrak{Z}		min. Earth dist.	404 Mar 13 j 00:16	16° \mathbb{M} 01'21	0.61985 AU
morning rise	398 Dec 30 j 13:02	25° \mathfrak{Z} 15'10		direct	404 Apr 17 j 15:25	8° \mathbb{M} 13'21	
	399 Jan 05 j 16:50	0° \mathfrak{Z}		desc. node	404 Jun 15 j 04:59	24° \mathbb{M} 52'33	
	399 Feb 13 j 05:42	0° \approx			404 Jun 25 j 08:12	0° \mathfrak{L}	
	399 Mar 23 j 17:27	0° \mathfrak{H}			404 Aug 14 j 00:13	0° \mathbb{M}	
	399 May 02 j 02:15	0° \mathbb{Y}			404 Sep 25 j 13:56	0° \mathfrak{Z}	
	399 Jun 12 j 09:11	0° \mathfrak{B}			404 Nov 04 j 04:32	0° \mathfrak{Z}	
	399 Jul 27 j 01:53	0° \mathbb{I}			404 Dec 12 j 15:41	0° \approx	
asc. node	399 Aug 23 j 16:50	16° \mathbb{I} 44'58			405 Jan 20 j 05:27	0° \mathfrak{H}	
	399 Sep 17 j 08:38	0° \mathfrak{G}			405 Feb 28 j 20:58	0° \mathbb{Y}	

evening set	405 Mar 15 j 09:26	10° Υ 41'14			409 Dec 03 j 08:12	0° \mathbb{M}	
	405 Apr 11 j 06:03	0° \mathcal{B}			410 Jan 16 j 12:01	0° \mathcal{Z}	
asc. node	405 Apr 14 j 13:52	2° \mathcal{B} 21'02		desc. node	410 Feb 05 j 02:17	13° \mathcal{Z} 28'24	
					410 Mar 01 j 00:21	0° \mathcal{Z}	
conjunction	405 May 12 j 05:13	21° \mathcal{B} 32'40	0°16'42		410 Apr 13 j 16:32	0° \approx	
minimum elong	405 May 12 j 04:20	21° \mathcal{B} 31'10	0°16'41		410 May 30 j 07:26	0° \mathcal{H}	
	405 May 24 j 15:48	0° \mathbb{I}		retrograde	410 Aug 08 j 10:13	25° \mathcal{H} 45'09	
max. Earth dist.	405 Jun 08 j 23:20	10° \mathbb{I} 15'44	2.58224 AU	min. Earth dist.	410 Sep 04 j 02:15	21° \mathcal{H} 04'18	0.41240 AU
morning rise	405 Jul 03 j 12:04	26° \mathbb{I} 24'13		greatest brilliancy	410 Sep 09 j 19:09	19° \mathcal{H} 17'27	-2.6m
	405 Jul 09 j 00:54	0° \mathcal{S}		opposition	410 Sep 11 j 06:15	18° \mathcal{H} 49'47	-4°-44'-23
	405 Aug 25 j 03:13	0° \mathcal{Q}		direct	410 Oct 12 j 04:09	13° \mathcal{H} 04'20	
	405 Oct 12 j 22:41	0° \mathcal{M}		asc. node	410 Dec 05 j 10:54	28° \mathcal{H} 03'26	
	405 Dec 03 j 17:35	0° $\underline{\mathcal{A}}$			410 Dec 09 j 14:09	0° Υ	
	406 Feb 05 j 03:27	0° \mathbb{M}			411 Feb 02 j 16:16	0° \mathcal{B}	
retrograde	406 Mar 16 j 14:58	7° \mathbb{M} 51'13			411 Mar 24 j 16:28	0° \mathbb{I}	
opposition	406 Apr 20 j 16:32	0° \mathbb{M} 41'22	0°37'56		411 May 12 j 14:12	0° \mathcal{S}	
greatest brilliancy	406 Apr 21 j 00:53	0° \mathbb{M} 34'03	-2.0m		411 Jun 29 j 19:13	0° \mathcal{Q}	
	406 Apr 22 j 15:38	30° $\mathcal{R}\underline{\mathcal{A}}$		evening set	411 Jul 23 j 04:30	14° \mathcal{Q} 46'58	
min. Earth dist.	406 Apr 29 j 02:15	27° $\underline{\mathcal{A}}$ 45'00	0.50725 AU		411 Aug 15 j 22:08	0° \mathcal{M}	
desc. node	406 May 03 j 04:06	26° $\underline{\mathcal{A}}$ 24'10		max. Earth dist.	411 Aug 20 j 14:16	3° \mathcal{M} 01'28	2.63892 AU
direct	406 May 29 j 08:25	21° $\underline{\mathcal{A}}$ 54'06					
	406 Jul 05 j 04:30	0° \mathbb{M}		conjunction	411 Sep 07 j 00:08	14° \mathcal{M} 23'37	0°55'14
	406 Aug 28 j 18:36	0° \mathcal{Z}		minimum elong	411 Sep 07 j 01:18	14° \mathcal{M} 25'31	0°55'14
	406 Oct 10 j 14:22	0° \mathcal{Z}			411 Sep 30 j 12:11	0° $\underline{\mathcal{A}}$	
	406 Nov 19 j 17:18	0° \approx		morning rise	411 Oct 22 j 18:16	15° $\underline{\mathcal{A}}$ 04'46	
	406 Dec 29 j 12:33	0° \mathcal{H}			411 Nov 13 j 08:10	0° \mathbb{M}	
	407 Feb 08 j 05:58	0° Υ		desc. node	411 Dec 24 j 01:47	28° \mathbb{M} 57'51	
asc. node	407 Mar 02 j 12:34	15° Υ 56'35			411 Dec 25 j 12:07	0° \mathcal{Z}	
	407 Mar 22 j 14:10	0° \mathcal{B}			412 Feb 04 j 07:18	0° \mathcal{Z}	
	407 May 05 j 18:16	0° \mathbb{I}			412 Mar 15 j 06:26	0° \approx	
evening set	407 May 06 j 02:12	0° \mathbb{I} 13'13			412 Apr 24 j 05:44	0° \mathcal{H}	
	407 Jun 20 j 12:59	0° \mathcal{S}			412 Jun 04 j 17:02	0° Υ	
					412 Jul 21 j 05:29	0° \mathcal{B}	
conjunction	407 Jun 25 j 05:11	3° \mathcal{S} 01'08	0°56'59	retrograde	412 Sep 27 j 18:39	24° \mathcal{B} 05'28	
minimum elong	407 Jun 25 j 03:55	2° \mathcal{S} 59'05	0°56'59	asc. node	412 Oct 22 j 09:26	19° \mathcal{B} 47'15	
max. Earth dist.	407 Jul 05 j 05:48	9° \mathcal{S} 28'08	2.65527 AU	min. Earth dist.	412 Oct 29 j 04:25	17° \mathcal{B} 22'03	0.53972 AU
	407 Aug 06 j 09:21	0° \mathcal{Q}		opposition	412 Nov 05 j 08:46	14° \mathcal{B} 37'06	0°39'58
morning rise	407 Aug 10 j 18:52	2° \mathcal{Q} 47'38		greatest brilliancy	412 Nov 05 j 01:42	14° \mathcal{B} 43'52	-1.9m
	407 Sep 22 j 17:45	0° \mathcal{M}		direct	412 Dec 10 j 19:45	6° \mathcal{B} 42'55	
	407 Nov 09 j 08:24	0° $\underline{\mathcal{A}}$			413 Feb 23 j 03:45	0° \mathbb{I}	
	407 Dec 27 j 14:11	0° \mathbb{M}			413 Apr 19 j 18:41	0° \mathcal{S}	
	408 Feb 16 j 01:22	0° \mathcal{Z}			413 Jun 09 j 10:46	0° \mathcal{Q}	
desc. node	408 Mar 20 j 03:37	17° \mathcal{Z} 41'11			413 Jul 27 j 11:07	0° \mathcal{M}	
	408 Apr 17 j 15:50	0° \mathcal{Z}		evening set	413 Aug 29 j 15:13	21° \mathcal{M} 39'23	
retrograde	408 May 23 j 20:55	7° \mathcal{Z} 07'50			413 Sep 11 j 01:58	0° $\underline{\mathcal{A}}$	
opposition	408 Jun 23 j 09:27	2° \mathcal{Z} 00'12	-5°-29'-39	max. Earth dist.	413 Sep 16 j 11:52	3° $\underline{\mathcal{A}}$ 40'00	2.55277 AU
greatest brilliancy	408 Jun 24 j 10:52	1° \mathcal{Z} 42'41	-2.8m				
min. Earth dist.	408 Jun 27 j 19:03	0° \mathcal{Z} 47'40	0.38801 AU	conjunction	413 Oct 17 j 00:03	24° $\underline{\mathcal{A}}$ 46'51	0°14'47
	408 Jun 30 j 18:16	30° $\mathcal{R}\mathcal{Z}$		minimum elong	413 Oct 17 j 00:41	24° $\underline{\mathcal{A}}$ 47'58	0°14'45
direct	408 Jul 25 j 02:07	26° \mathcal{Z} 21'14		behind sun begin	413 Oct 16 j 15:53	24° $\underline{\mathcal{A}}$ 32'27	
	408 Aug 17 j 19:28	0° \mathcal{Z}		behind sun end	413 Oct 17 j 09:30	25° $\underline{\mathcal{A}}$ 03'29	
	408 Oct 17 j 00:35	0° \approx			413 Oct 24 j 09:04	0° \mathbb{M}	
	408 Dec 01 j 17:17	0° \mathcal{H}		desc. node	413 Nov 10 j 01:22	11° \mathbb{M} 58'11	
	409 Jan 14 j 20:05	0° Υ			413 Dec 04 j 14:58	0° \mathcal{Z}	
asc. node	409 Jan 17 j 10:59	1° Υ 46'42		morning rise	413 Dec 07 j 14:12	2° \mathcal{Z} 12'32	
	409 Feb 28 j 11:23	0° \mathcal{B}			414 Jan 13 j 07:25	0° \mathcal{Z}	
	409 Apr 15 j 05:20	0° \mathbb{I}			414 Feb 21 j 02:27	0° \approx	
	409 May 31 j 23:25	0° \mathcal{S}			414 Mar 31 j 19:26	0° \mathcal{H}	
evening set	409 Jun 15 j 13:53	9° \mathcal{S} 17'29			414 May 10 j 09:44	0° Υ	
	409 Jul 18 j 04:08	0° \mathcal{Q}			414 Jun 21 j 03:39	0° \mathcal{B}	
max. Earth dist.	409 Jul 27 j 18:05	6° \mathcal{Q} 05'51	2.67422 AU		414 Aug 06 j 06:50	0° \mathbb{I}	
				asc. node	414 Sep 09 j 07:25	18° \mathbb{I} 39'52	
conjunction	409 Aug 01 j 01:10	8° \mathcal{Q} 50'04	1°09'30		414 Oct 07 j 00:07	0° \mathcal{S}	
minimum elong	409 Aug 01 j 01:12	8° \mathcal{Q} 50'07	1°09'31	retrograde	414 Nov 05 j 13:13	5° \mathcal{S} 06'43	
	409 Sep 03 j 02:30	0° \mathcal{M}			414 Dec 03 j 01:07	30° $\mathcal{R}\mathbb{I}$	
morning rise	409 Sep 14 j 14:45	7° \mathcal{M} 25'35		min. Earth dist.	414 Dec 11 j 22:43	26° \mathbb{I} 37'11	0.63852 AU
	409 Oct 19 j 05:39	0° $\underline{\mathcal{A}}$		opposition	414 Dec 15 j 14:54	25° \mathbb{I} 08'59	3°30'04

greatest brilliancy	414 Dec 14 j 22:46	25°II25'08	-1.4m		420 Mar 08 j 09:11	0°Y	
direct	415 Jan 23 j 10:33	15°II59'17			420 Apr 18 j 12:39	0°8	
	415 Mar 19 j 21:29	0°S					
	415 May 18 j 09:40	0°Q		conjunction	420 Apr 21 j 17:57	2°817'16	0°-5'-55
	415 Jul 07 j 21:21	0°P		minimum elong	420 Apr 21 j 18:21	2°817'58	0°05'55
	415 Aug 23 j 05:37	0°A		behind sun begin	420 Apr 20 j 19:16	1°837'03	
desc. node	415 Sep 27 j 23:49	24°A39'53		behind sun end	420 Apr 22 j 17:26	2°858'50	
	415 Oct 05 j 11:45	0°M		asc. node	420 May 01 j 05:16	8°857'57	
evening set	415 Oct 13 j 12:06	5°M45'54		max. Earth dist.	420 May 27 j 12:55	27°808'26	2.53986 AU
max. Earth dist.	415 Oct 30 j 01:04	17°M51'34	2.42865 AU		420 May 31 j 18:00	0°II	
	415 Nov 15 j 07:45	0°J		morning rise	420 Jun 16 j 16:07	10°II41'27	
					420 Jul 16 j 02:18	0°S	
conjunction	415 Dec 08 j 13:01	17°J40'50	0°-42'-50		420 Sep 01 j 12:00	0°Q	
minimum elong	415 Dec 08 j 10:42	17°J36'22	0°42'50		420 Oct 21 j 10:53	0°P	
	415 Dec 24 j 10:59	0°Z			420 Dec 16 j 07:16	0°A	
	416 Jan 31 j 17:16	0°≈		retrograde	421 Feb 24 j 08:58	20°A43'32	
morning rise	416 Feb 11 j 09:27	8°≈23'58		opposition	421 Apr 01 j 21:54	12°A53'51	2°09'12
	416 Mar 09 j 23:31	0°H		greatest brilliancy	421 Apr 02 j 19:45	12°A33'46	-1.8m
	416 Apr 18 j 02:57	0°Y		min. Earth dist.	421 Apr 09 j 11:42	10°A07'07	0.55707 AU
	416 May 29 j 00:30	0°8		direct	421 May 11 j 23:35	3°A27'26	
	416 Jul 11 j 14:17	0°II		desc. node	421 May 19 j 19:54	3°A51'38	
asc. node	416 Jul 27 j 07:23	10°II14'02			421 Jul 25 j 17:54	0°M	
	416 Aug 28 j 10:51	0°S			421 Sep 09 j 20:42	0°J	
	416 Oct 26 j 22:28	0°Q			421 Oct 20 j 18:04	0°Z	
retrograde	416 Dec 09 j 05:33	9°Q34'23			421 Nov 28 j 22:28	0°≈	
opposition	417 Jan 18 j 07:09	29°S54'04	4°32'36		422 Jan 07 j 01:47	0°H	
greatest brilliancy	417 Jan 18 j 06:30	29°S54'42	-1.2m		422 Feb 16 j 05:41	0°Y	
min. Earth dist.	417 Jan 18 j 11:40	29°S49'34	0.67640 AU	asc. node	422 Mar 19 j 04:27	22°Y18'50	
	417 Jan 18 j 01:12	30°R			422 Mar 30 j 02:14	0°8	
direct	417 Feb 28 j 02:40	20°S04'32		evening set	422 Apr 17 j 15:09	12°851'48	
	417 Apr 14 j 08:36	0°Q			422 May 12 j 21:09	0°II	
	417 Jun 14 j 05:56	0°P					
	417 Aug 02 j 00:20	0°A		conjunction	422 Jun 09 j 04:51	18°II06'51	0°44'41
desc. node	417 Aug 14 j 22:16	8°A33'16		minimum elong	422 Jun 09 j 03:22	18°II04'26	0°44'41
	417 Sep 14 j 22:25	0°M		max. Earth dist.	422 Jun 25 j 18:08	28°II54'36	2.63317 AU
	417 Oct 25 j 19:12	0°J			422 Jun 27 j 10:29	0°S	
	417 Dec 03 j 18:00	0°Z		morning rise	422 Jul 27 j 11:30	19°S18'30	
evening set	417 Dec 11 j 01:09	5°Z43'16			422 Aug 13 j 07:06	0°Q	
	418 Jan 10 j 19:35	0°≈			422 Sep 30 j 01:00	0°P	
					422 Nov 17 j 17:40	0°A	
conjunction	418 Feb 15 j 23:23	28°≈26'38	-1°00'-47		423 Jan 07 j 15:32	0°M	
minimum elong	418 Feb 16 j 01:36	28°≈30'58	1°00'48		423 Mar 08 j 11:31	0°J	
	418 Feb 17 j 23:16	0°H		desc. node	423 Apr 06 j 19:19	9°J08'11	
	418 Mar 29 j 02:17	0°Y		retrograde	423 Apr 24 j 11:45	10°J57'38	
max. Earth dist.	418 Apr 07 j 08:03	6°Y54'57	2.40774 AU	opposition	423 May 26 j 18:11	5°J04'36	-2°-54'-24
morning rise	418 Apr 25 j 00:29	19°Y56'56		greatest brilliancy	423 May 27 j 20:57	4°J43'53	-2.5m
	418 May 08 j 22:18	0°8		min. Earth dist.	423 Jun 03 j 06:21	2°J46'03	0.42711 AU
asc. node	418 Jun 14 j 06:57	25°826'04			423 Jun 13 j 17:22	30°RM	
	418 Jun 21 j 00:08	0°II		direct	423 Jun 30 j 14:13	28°M03'15	
	418 Aug 05 j 18:56	0°S			423 Jul 17 j 13:47	0°J	
	418 Sep 24 j 06:56	0°Q			423 Sep 18 j 19:57	0°Z	
	418 Nov 21 j 23:52	0°P			423 Nov 02 j 02:40	0°≈	
retrograde	419 Jan 13 j 23:23	13°P07'21			423 Dec 14 j 02:09	0°H	
opposition	419 Feb 21 j 22:21	4°P07'59	4°12'36		424 Jan 25 j 07:10	0°Y	
greatest brilliancy	419 Feb 22 j 16:44	3°P50'04	-1.3m	asc. node	424 Feb 04 j 03:20	6°Y53'06	
min. Earth dist.	419 Feb 26 j 00:09	2°P32'44	0.64854 AU		424 Mar 08 j 17:43	0°8	
	419 Mar 04 j 18:54	30°RQ			424 Apr 22 j 16:51	0°II	
direct	419 Apr 04 j 08:29	24°Q06'37		evening set	424 May 31 j 05:12	25°II00'49	
	419 May 07 j 08:56	0°P			424 Jun 07 j 23:28	0°S	
desc. node	419 Jul 02 j 21:22	26°P34'10					
	419 Jul 08 j 18:27	0°A		conjunction	424 Jul 17 j 16:54	25°S22'29	1°07'52
	419 Aug 24 j 09:42	0°M		minimum elong	424 Jul 17 j 16:22	25°S21'39	1°07'53
	419 Oct 05 j 03:01	0°J		max. Earth dist.	424 Jul 18 j 16:44	26°S00'27	2.67341 AU
	419 Nov 13 j 09:00	0°Z			424 Jul 24 j 23:13	0°Q	
	419 Dec 21 j 14:38	0°≈		morning rise	424 Aug 31 j 15:58	24°Q02'00	
	420 Jan 28 j 23:17	0°H			424 Sep 09 j 23:46	0°P	
evening set	420 Feb 19 j 19:31	16°H45'47			424 Oct 26 j 13:24	0°A	

	424 Dec 11 j 13:09	0°♌			430 Apr 02 j 20:09	0°♍		
	425 Jan 26 j 04:57	0°♊			430 May 27 j 04:29	0°♎		
desc. node	425 Feb 21 j 19:29	17°♊25'32			430 Jul 15 j 10:10	0°♏		
	425 Mar 13 j 05:26	0°♋			430 Aug 30 j 09:38	0°♐		
	425 May 01 j 02:09	0°♌		evening set	430 Sep 24 j 19:57	17°♐26'02		
retrograde	425 Jul 12 j 13:12	25°♌52'35		max. Earth dist.	430 Oct 09 j 08:15	27°♐39'26	2.47947 AU	
min. Earth dist.	425 Aug 08 j 22:24	21°♌24'39	0.38001 AU		430 Oct 12 j 15:09	0°♑		
opposition	425 Aug 12 j 19:25	20°♌20'38	-6°-37'00	desc. node	430 Oct 14 j 15:59	1°♑27'19		
greatest brilliancy	425 Aug 11 j 20:28	20°♌36'28	-2.8m					
direct	425 Sep 11 j 08:13	15°♌20'08		conjunction	430 Nov 16 j 02:00	25°♑08'17	0°-20'-21	
	425 Nov 02 j 23:45	0°♍		minimum elong	430 Nov 16 j 00:53	25°♑06'12	0°20'21	
asc. node	425 Dec 22 j 01:41	27°♍00'35			430 Nov 22 j 14:13	0°♎		
	425 Dec 27 j 00:56	0°♎			430 Dec 31 j 21:40	0°♏		
	426 Feb 13 j 10:56	0°♏		morning rise	431 Jan 13 j 23:54	10°♏10'36		
	426 Apr 02 j 04:05	0°♐			431 Feb 08 j 07:48	0°♑		
	426 May 20 j 00:10	0°♑			431 Mar 18 j 17:00	0°♒		
	426 Jul 06 j 17:14	0°♒			431 Apr 26 j 22:47	0°♓		
evening set	426 Jul 08 j 17:52	1°♒16'53			431 Jun 07 j 00:28	0°♈		
max. Earth dist.	426 Aug 11 j 06:09	22°♒37'26	2.65919 AU		431 Jul 21 j 03:20	0°♉		
	426 Aug 22 j 17:01	0°♓		asc. node	431 Aug 13 j 23:23	14°♉57'53		
					431 Sep 09 j 02:07	0°♊		
conjunction	426 Aug 23 j 11:13	0°♓29'24	1°03'54	retrograde	431 Nov 26 j 21:07	26°♊42'35		
minimum elong	426 Aug 23 j 12:02	0°♓30'44	1°03'54	min. Earth dist.	432 Jan 04 j 18:16	17°♊24'10	0.66924 AU	
morning rise	426 Oct 07 j 07:40	29°♓54'47		opposition	432 Jan 06 j 01:59	16°♊52'25	4°18'33	
	426 Oct 07 j 10:48	0°♋		greatest brilliancy	432 Jan 05 j 18:08	17°♊00'16	-1.3m	
	426 Nov 20 j 16:28	0°♌		direct	432 Feb 15 j 06:22	7°♊15'15		
	427 Jan 02 j 11:10	0°♍			432 Apr 29 j 19:29	0°♎		
desc. node	427 Jan 09 j 17:55	5°♍12'02			432 Jun 23 j 08:50	0°♏		
	427 Feb 13 j 00:40	0°♎			432 Aug 09 j 21:01	0°♐		
	427 Mar 25 j 21:04	0°♏		desc. node	432 Aug 31 j 14:30	14°♐40'53		
	427 May 06 j 00:19	0°♐			432 Sep 22 j 10:41	0°♑		
	427 Jun 18 j 18:52	0°♑			432 Nov 02 j 06:16	0°♒		
	427 Aug 16 j 03:22	0°♒		evening set	432 Nov 15 j 13:43	10°♒07'15		
retrograde	427 Sep 10 j 23:23	4°♒26'53			432 Dec 11 j 06:05	0°♓		
	427 Oct 06 j 01:18	30°♒♑						
min. Earth dist.	427 Oct 10 j 05:11	28°♑34'15	0.48878 AU	conjunction	433 Jan 18 j 00:03	29°♓43'06	-1°-4'-38	
opposition	427 Oct 18 j 06:07	25°♑38'33	-1°-8'-21	minimum elong	433 Jan 17 j 23:17	29°♓41'34	1°04'38	
greatest brilliancy	427 Oct 17 j 18:01	25°♑49'34	-2.2m		433 Jan 18 j 08:37	0°♑		
asc. node	427 Nov 09 j 01:10	19°♑26'28		max. Earth dist.	433 Jan 23 j 03:18	3°♑46'26	2.37162 AU	
direct	427 Nov 20 j 22:49	18°♑28'49			433 Feb 25 j 12:16	0°♒		
	428 Jan 07 j 16:49	0°♈		morning rise	433 Mar 29 j 04:25	24°♒23'52		
	428 Mar 07 j 13:39	0°♉			433 Apr 05 j 14:07	0°♓		
	428 Apr 28 j 10:05	0°♊			433 May 16 j 08:52	0°♈		
	428 Jun 16 j 20:32	0°♋			433 Jun 28 j 12:16	0°♉		
	428 Aug 03 j 10:17	0°♌		asc. node	433 Jun 30 j 22:26	1°♉37'47		
evening set	428 Aug 14 j 07:26	7°♌02'26			433 Aug 13 j 18:12	0°♊		
max. Earth dist.	428 Sep 04 j 18:59	21°♌10'01	2.59212 AU		433 Oct 04 j 03:27	0°♋		
	428 Sep 17 j 23:42	0°♍			433 Dec 27 j 02:54	0°♌		
				retrograde	433 Dec 30 j 15:35	0°♌04'37		
conjunction	428 Sep 30 j 05:07	8°♍17'51	0°33'25		434 Jan 03 j 03:18	30°♌♎		
minimum elong	428 Sep 30 j 06:16	8°♍19'49	0°33'24	opposition	434 Feb 08 j 04:17	20°♌46'34	4°30'17	
	428 Oct 31 j 10:45	0°♎		greatest brilliancy	434 Feb 08 j 15:43	20°♌35'17	-1.3m	
morning rise	428 Nov 17 j 18:14	12°♎20'41		min. Earth dist.	434 Feb 10 j 18:00	19°♌45'45	0.66729 AU	
desc. node	428 Nov 26 j 16:48	18°♎48'32		direct	434 Mar 21 j 13:04	10°♌46'02		
	428 Dec 11 j 23:59	0°♏			434 May 26 j 09:57	0°♐		
	429 Jan 21 j 01:10	0°♐			434 Jul 18 j 18:40	0°♑		
	429 Mar 01 j 04:50	0°♑		desc. node	434 Jul 19 j 13:06	0°♑28'51		
	429 Apr 09 j 06:09	0°♒			434 Sep 01 j 22:04	0°♒		
	429 May 19 j 06:37	0°♓			434 Oct 13 j 04:14	0°♓		
	429 Jun 30 j 21:36	0°♈			434 Nov 21 j 05:54	0°♈		
	429 Aug 19 j 04:05	0°♉		greatest brilliancy	434 Dec 05 j 06:21	10°♈59'31	1.2m	
asc. node	429 Sep 26 j 00:42	16°♉16'21			434 Dec 29 j 08:47	0°♊		
retrograde	429 Oct 22 j 07:23	20°♉30'47		evening set	435 Jan 23 j 15:33	19°♊53'41		
min. Earth dist.	429 Nov 25 j 20:54	12°♉38'38	0.60619 AU		435 Feb 05 j 14:24	0°♋		
greatest brilliancy	429 Nov 30 j 06:32	10°♉53'53	-1.6m		435 Mar 16 j 20:25	0°♌		
opposition	429 Dec 01 j 00:11	10°♉36'21	2°39'49					
direct	430 Jan 07 j 16:17	1°♉51'00		conjunction	435 Mar 30 j 10:15	10°♑06'08	0°-30'-19	

minimum elong	435 Mar 30 j 12:24	10° Υ 10'06	0°30'19	opposition	440 Jul 11 j 06:23	19° Z 19'05	-6°-32'-15
	435 Apr 26 j 19:32	0° B		greatest brilliancy	440 Jul 11 j 17:40	19° Z 11'33	-2.8m
max. Earth dist.	435 May 13 j 15:25	11° B 54'09	2.49059 AU	min. Earth dist.	440 Jul 12 j 20:37	18° Z 53'35	0.37657 AU
asc. node	435 May 18 j 21:57	15° B 34'57		direct	440 Aug 10 j 16:08	14° Z 11'28	
morning rise	435 May 29 j 22:33	23° B 11'57			440 Oct 03 j 04:02	0° \approx	
	435 Jun 08 j 21:45	0° II			440 Nov 23 j 07:53	0° H	
	435 Jul 24 j 07:08	0° S		asc. node	441 Jan 07 j 18:35	29° H 39'14	
	435 Sep 10 j 05:06	0° Q			441 Jan 08 j 07:10	0° Υ	
	435 Nov 01 j 00:17	0° M			441 Feb 22 j 20:50	0° B	
	436 Jan 06 j 12:49	0° A			441 Apr 10 j 03:43	0° II	
retrograde	436 Feb 07 j 13:37	5° A 22'08			441 May 27 j 05:13	0° S	
	436 Mar 08 j 01:04	30° R M		evening set	441 Jun 24 j 03:10	17° S 40'52	
opposition	436 Mar 16 j 06:06	27° M 00'30	3°13'00		441 Jul 13 j 13:31	0° Q	
greatest brilliancy	436 Mar 17 j 06:40	26° M 37'13	-1.6m	max. Earth dist.	441 Aug 02 j 01:40	12° Q 24'33	2.67122 AU
min. Earth dist.	436 Mar 22 j 14:14	24° M 36'34	0.59991 AU				
direct	436 Apr 26 j 04:01	17° M 11'46		conjunction	441 Aug 09 j 05:07	16° Q 58'20	1°08'36
desc. node	436 Jun 05 j 12:57	26° M 03'34		minimum elong	441 Aug 09 j 05:28	16° Q 58'53	1°08'36
	436 Jun 14 j 21:01	0° A			441 Aug 29 j 12:13	0° M	
	436 Aug 07 j 09:49	0° M		morning rise	441 Sep 22 j 17:48	15° M 42'59	
	436 Sep 19 j 20:33	0° J			441 Oct 14 j 11:45	0° A	
	436 Oct 29 j 19:27	0° Z			441 Nov 28 j 06:09	0° M	
	436 Dec 07 j 11:08	0° \approx			442 Jan 10 j 20:18	0° J	
	437 Jan 15 j 04:28	0° H		desc. node	442 Jan 26 j 10:03	10° J 53'29	
	437 Feb 23 j 23:08	0° Υ			442 Feb 22 j 12:03	0° Z	
evening set	437 Mar 28 j 03:51	23° Υ 23'50			442 Apr 05 j 19:30	0° \approx	
asc. node	437 Apr 04 j 19:53	28° Υ 50'44			442 May 19 j 09:00	0° H	
	437 Apr 06 j 11:06	0° B			442 Jul 09 j 20:11	0° Υ	
	437 May 19 j 23:06	0° II		retrograde	442 Aug 21 j 12:20	11° Υ 13'14	
conjunction	437 May 22 j 21:13	1° II 58'03	0°28'08	min. Earth dist.	442 Sep 17 j 21:22	6° Υ 09'54	0.43777 AU
minimum elong	437 May 22 j 19:57	1° II 55'55	0°28'07	opposition	442 Sep 25 j 19:40	3° Υ 30'32	-3°-22'-55
max. Earth dist.	437 Jun 15 j 09:06	17° II 35'45	2.60278 AU	greatest brilliancy	442 Sep 24 j 13:01	3° Υ 56'19	-2.5m
	437 Jul 04 j 08:38	0° S			442 Oct 07 j 07:27	30° R H	
morning rise	437 Jul 12 j 12:06	5° S 16'07		direct	442 Oct 27 j 15:43	27° H 13'51	
	437 Aug 20 j 07:36	0° Q			442 Nov 18 j 01:03	0° Υ	
	437 Oct 07 j 15:34	0° M		asc. node	442 Nov 25 j 17:47	2° Υ 08'17	
	437 Nov 27 j 00:03	0° A			443 Jan 25 j 14:11	0° B	
	438 Jan 22 j 06:20	0° M			443 Mar 18 j 17:30	0° II	
retrograde	438 Mar 29 j 12:11	19° M 05'46			443 May 07 j 11:02	0° S	
desc. node	438 Apr 23 j 11:54	15° M 15'00		evening set	443 Jun 25 j 01:00	0° Q	
opposition	438 May 02 j 14:17	12° M 21'18	0°-29'-21		443 Jul 31 j 12:51	23° Q 04'18	
greatest brilliancy	438 May 02 j 20:20	12° M 16'11	-2.2m	max. Earth dist.	443 Aug 11 j 07:32	0° M	
min. Earth dist.	438 May 11 j 01:33	9° M 29'37	0.47836 AU		443 Aug 26 j 09:31	9° M 47'42	2.62441 AU
direct	438 Jun 09 j 03:25	4° M 04'36		conjunction	443 Sep 15 j 14:12	23° M 06'42	0°48'21
	438 Aug 19 j 08:21	0° J		minimum elong	443 Sep 15 j 15:26	23° M 08'46	0°48'21
	438 Oct 03 j 12:36	0° Z			443 Sep 25 j 21:29	0° A	
	438 Nov 13 j 12:54	0° \approx		morning rise	443 Nov 01 j 02:41	24° A 45'53	
	438 Dec 23 j 20:49	0° H			443 Nov 08 j 14:31	0° M	
	439 Feb 02 j 23:18	0° Υ		desc. node	443 Dec 14 j 08:52	25° M 30'29	
asc. node	439 Feb 20 j 18:46	12° Υ 40'57			443 Dec 20 j 13:11	0° J	
	439 Mar 17 j 14:21	0° B			444 Jan 30 j 01:35	0° Z	
	439 Apr 30 j 23:37	0° II			444 Mar 09 j 16:38	0° \approx	
evening set	439 May 15 j 23:02	9° II 52'50			444 Apr 18 j 05:59	0° H	
	439 Jun 15 j 21:30	0° S			444 May 28 j 23:48	0° Υ	
					444 Jul 12 j 09:12	0° B	
conjunction	439 Jul 03 j 23:30	11° S 37'30	1°02'12		444 Sep 10 j 08:53	0° II	
minimum elong	439 Jul 03 j 22:28	11° S 35'51	1°02'12	retrograde	444 Oct 07 j 02:36	4° II 31'05	
max. Earth dist.	439 Jul 10 j 16:12	15° S 54'37	2.66413 AU	asc. node	444 Oct 12 j 15:57	4° II 17'51	
	439 Aug 01 j 18:20	0° Q			444 Nov 01 j 09:56	30° R B	
morning rise	439 Aug 18 j 19:45	10° Q 50'52		min. Earth dist.	444 Nov 08 j 16:02	27° B 21'39	0.56542 AU
	439 Sep 17 j 23:12	0° M		opposition	444 Nov 15 j 04:18	24° B 49'33	1°30'33
	439 Nov 04 j 03:12	0° A		greatest brilliancy	444 Nov 14 j 14:43	25° B 02'48	-1.8m
	439 Dec 21 j 09:12	0° M		direct	444 Dec 21 j 12:04	16° B 34'51	
	440 Feb 07 j 12:26	0° J			445 Feb 12 j 17:57	0° II	
desc. node	440 Mar 10 j 10:47	18° J 59'07			445 Apr 13 j 13:29	0° S	
	440 Mar 30 j 07:26	0° Z			445 Jun 04 j 06:36	0° Q	
retrograde	440 Jun 11 j 02:17	24° Z 17'32			445 Jul 22 j 16:25	0° M	

	445 Sep 06 j 10:20	0°♄			450 Mar 24 j 06:43	0°♅	
evening set	445 Sep 07 j 19:47	0°♄56'27		max. Earth dist.	450 Apr 23 j 23:36	22°♅41'57	2.43694 AU
max. Earth dist.	445 Sep 24 j 01:11	12°♄01'01	2.52795 AU		450 May 04 j 02:30	0°♄	
	445 Oct 19 j 17:08	0°♄		morning rise	450 May 08 j 14:54	3°♄13'38	
				asc. node	450 Jun 04 j 12:38	22°♄04'25	
conjunction	445 Oct 27 j 08:02	5°♄26'59	0°02'32		450 Jun 16 j 03:04	0°♄	
minimum elong	445 Oct 27 j 08:07	5°♄27'08	0°02'31		450 Jul 31 j 16:19	0°♄	
behind sun begin	445 Oct 26 j 10:38	4°♄48'36			450 Sep 18 j 09:54	0°♄	
behind sun end	445 Oct 28 j 05:36	6°♄05'43			450 Nov 12 j 11:30	0°♄	
desc. node	445 Oct 31 j 07:45	8°♄19'14		retrograde	451 Jan 22 j 13:43	21°♄17'49	
	445 Nov 29 j 20:52	0°♄		opposition	451 Mar 02 j 03:31	12°♄30'39	3°55'23
morning rise	445 Dec 20 j 03:37	15°♄15'39		greatest brilliancy	451 Mar 03 j 01:00	12°♄09'53	-1.4m
	446 Jan 08 j 10:18	0°♄		min. Earth dist.	451 Mar 07 j 01:24	10°♄36'49	0.63394 AU
	446 Feb 16 j 02:00	0°♄		direct	451 Apr 12 j 11:36	2°♄31'30	
	446 Mar 26 j 15:44	0°♄		desc. node	451 Jun 23 j 04:37	25°♄34'36	
	446 May 05 j 01:53	0°♄			451 Jul 01 j 07:48	0°♄	
	446 Jun 15 j 11:14	0°♄			451 Aug 18 j 13:36	0°♄	
	446 Jul 30 j 13:32	0°♄			451 Sep 29 j 18:56	0°♄	
asc. node	446 Aug 30 j 15:34	18°♄15'48			451 Nov 08 j 06:11	0°♄	
	446 Sep 23 j 02:36	0°♄			451 Dec 16 j 14:42	0°♄	
retrograde	446 Nov 13 j 10:26	13°♄26'54			452 Jan 24 j 01:32	0°♄	
min. Earth dist.	446 Dec 20 j 18:12	4°♄38'44	0.65216 AU		452 Mar 03 j 13:27	0°♄	
opposition	446 Dec 23 j 14:13	3°♄30'35	3°51'59	evening set	452 Mar 05 j 00:52	1°♄05'54	
greatest brilliancy	446 Dec 23 j 00:24	3°♄44'26	-1.3m		452 Apr 13 j 18:31	0°♄	
	447 Jan 01 j 15:38	30°♄		asc. node	452 Apr 21 j 12:29	5°♄28'52	
direct	447 Jan 31 j 22:40	24°♄09'47					
	447 Mar 06 j 12:42	0°♄		conjunction	452 May 03 j 16:21	13°♄59'12	0°07'30
	447 May 12 j 00:44	0°♄		minimum elong	452 May 03 j 15:55	13°♄58'26	0°07'30
	447 Jul 02 j 16:08	0°♄		behind sun begin	452 May 02 j 18:54	13°♄21'56	
	447 Aug 18 j 09:33	0°♄		behind sun end	452 May 04 j 12:56	14°♄34'55	
desc. node	447 Sep 18 j 07:06	21°♄09'55			452 May 27 j 00:52	0°♄	
	447 Sep 30 j 18:27	0°♄		max. Earth dist.	452 Jun 03 j 21:24	5°♄17'53	2.56409 AU
evening set	447 Oct 25 j 01:44	17°♄39'57		morning rise	452 Jun 26 j 11:37	20°♄18'12	
	447 Nov 10 j 14:25	0°♄			452 Jul 11 j 08:05	0°♄	
max. Earth dist.	447 Nov 16 j 04:26	4°♄13'09	2.40154 AU		452 Aug 27 j 12:11	0°♄	
	447 Dec 19 j 16:24	0°♄			452 Oct 15 j 17:06	0°♄	
					452 Dec 07 j 19:43	0°♄	
conjunction	447 Dec 22 j 16:37	2°♄20'52	0°-53'-41		453 Feb 24 j 23:45	0°♄	
minimum elong	447 Dec 22 j 14:09	2°♄16'02	0°53'41	retrograde	453 Mar 07 j 12:24	0°♄38'47	
	448 Jan 26 j 21:01	0°♄			453 Mar 17 j 16:42	30°♄	
morning rise	448 Feb 28 j 11:33	25°♄38'00		opposition	453 Apr 12 j 06:26	23°♄10'05	1°20'25
	448 Mar 05 j 01:51	0°♄		greatest brilliancy	453 Apr 12 j 22:16	22°♄55'52	-1.9m
	448 Apr 13 j 04:00	0°♄		min. Earth dist.	453 Apr 20 j 08:38	20°♄15'57	0.53022 AU
	448 May 23 j 23:16	0°♄		desc. node	453 May 10 j 03:30	14°♄56'46	
	448 Jul 06 j 07:13	0°♄		direct	453 May 21 j 15:16	14°♄02'34	
asc. node	448 Jul 17 j 14:19	7°♄28'17			453 Jul 15 j 04:14	0°♄	
	448 Aug 22 j 08:14	0°♄			453 Sep 02 j 18:42	0°♄	
	448 Oct 16 j 08:14	0°♄			453 Oct 14 j 15:17	0°♄	
retrograde	448 Dec 16 j 22:25	17°♄19'31			453 Nov 23 j 06:50	0°♄	
opposition	449 Jan 25 j 20:44	7°♄46'21	4°35'07		454 Jan 01 j 17:43	0°♄	
greatest brilliancy	449 Jan 26 j 00:27	7°♄42'40	-1.2m		454 Feb 11 j 03:45	0°♄	
min. Earth dist.	449 Jan 26 j 21:49	7°♄21'26	0.67609 AU	asc. node	454 Mar 09 j 11:38	18°♄55'59	
	449 Feb 17 j 15:40	30°♄			454 Mar 25 j 05:10	0°♄	
direct	449 Mar 07 j 22:31	27°♄51'41		evening set	454 Apr 28 j 08:36	23°♄24'57	
	449 Mar 27 j 09:31	0°♄			454 May 08 j 03:52	0°♄	
	449 Jun 07 j 14:44	0°♄					
	449 Jul 27 j 15:06	0°♄		conjunction	454 Jun 18 j 11:53	27°♄12'51	0°52'20
desc. node	449 Aug 05 j 06:05	5°♄36'52		minimum elong	454 Jun 18 j 10:29	27°♄10'36	0°52'19
	449 Sep 09 j 22:41	0°♄			454 Jun 22 j 19:00	0°♄	
	449 Oct 20 j 22:47	0°♄		max. Earth dist.	454 Jul 01 j 10:18	5°♄34'49	2.64640 AU
	449 Nov 28 j 22:33	0°♄		morning rise	454 Aug 04 j 18:10	27°♄32'55	
evening set	449 Dec 26 j 10:51	21°♄39'23			454 Aug 08 j 14:42	0°♄	
	450 Jan 06 j 00:06	0°♄			454 Sep 25 j 02:39	0°♄	
	450 Feb 13 j 03:40	0°♄			454 Nov 12 j 03:17	0°♄	
					454 Dec 31 j 08:24	0°♄	
conjunction	450 Mar 04 j 00:07	14°♄35'13	0°-52'-10		455 Feb 22 j 12:04	0°♄	
minimum elong	450 Mar 04 j 03:07	14°♄40'59	0°52'10	desc. node	455 Mar 28 j 02:47	15°♄38'20	

retrograde	455 May 11 j 00:33	25°♂31'41		evening set	460 Aug 22 j 22:58	15°♂42'57	
opposition	455 Jun 11 j 06:36	20°♂06'18	-4°-24'-36	max. Earth dist.	460 Sep 11 j 08:13	28°♂36'46	2.57132 AU
greatest brilliancy	455 Jun 12 j 12:41	19°♂44'32	-2.7m		460 Sep 13 j 09:41	0°♂	
min. Earth dist.	455 Jun 17 j 10:17	18°♂20'00	0.40320 AU				
direct	455 Jul 14 j 08:14	13°♂52'05		conjunction	460 Oct 09 j 13:54	17°♂54'32	0°23'06
	455 Sep 05 j 14:50	0°♂		minimum elong	460 Oct 09 j 14:49	17°♂56'07	0°23'06
	455 Oct 24 j 17:20	0°♂			460 Oct 26 j 19:41	0°♂	
	455 Dec 07 j 08:00	0°♂		desc. node	460 Nov 17 j 00:44	15°♂12'00	
	456 Jan 19 j 10:33	0°♂		morning rise	460 Nov 28 j 15:59	23°♂41'11	
asc. node	456 Jan 25 j 09:55	4°♂07'18			460 Dec 07 j 05:37	0°♂	
	456 Mar 03 j 10:35	0°♂			461 Jan 16 j 02:27	0°♂	
	456 Apr 17 j 18:43	0°♂			461 Feb 24 j 01:10	0°♂	
	456 Jun 03 j 06:42	0°♂			461 Apr 03 j 21:05	0°♂	
evening set	456 Jun 09 j 02:39	3°♂43'33			461 May 13 j 14:21	0°♂	
	456 Jul 20 j 08:49	0°♂			461 Jun 24 j 13:52	0°♂	
max. Earth dist.	456 Jul 23 j 22:47	2°♂16'49	2.67487 AU		461 Aug 10 j 14:14	0°♂	
				asc. node	461 Sep 16 j 06:21	18°♂44'41	
conjunction	456 Jul 25 j 23:18	3°♂34'01	1°09'18	retrograde	461 Oct 30 j 14:19	29°♂28'02	
minimum elong	456 Jul 25 j 23:06	3°♂33'42	1°09'18	min. Earth dist.	461 Dec 05 j 04:47	21°♂14'14	0.62533 AU
	456 Sep 05 j 08:10	0°♂		opposition	461 Dec 09 j 12:24	19°♂30'50	3°11'18
morning rise	456 Sep 08 j 15:39	2°♂07'42		greatest brilliancy	461 Dec 08 j 19:01	19°♂48'13	-1.5m
	456 Oct 21 j 15:56	0°♂		direct	462 Jan 16 j 20:04	10°♂31'09	
	456 Dec 06 j 03:40	0°♂			462 Mar 25 j 11:35	0°♂	
	457 Jan 19 j 22:00	0°♂			462 May 21 j 11:10	0°♂	
desc. node	457 Feb 12 j 01:39	15°♂37'51			462 Jul 10 j 10:31	0°♂	
	457 Mar 05 j 08:39	0°♂			462 Aug 25 j 16:10	0°♂	
	457 Apr 19 j 15:29	0°♂		desc. node	462 Oct 04 j 23:19	27°♂51'33	
	457 Jun 10 j 02:12	0°♂		evening set	462 Oct 05 j 04:12	28°♂00'14	
retrograde	457 Jul 28 j 07:47	13°♂32'42			462 Oct 07 j 23:25	0°♂	
min. Earth dist.	457 Aug 23 j 22:23	9°♂03'16	0.39509 AU	max. Earth dist.	462 Oct 20 j 02:35	8°♂44'02	2.45148 AU
opposition	457 Aug 29 j 22:20	7°♂17'13	-5°-42'00		462 Nov 17 j 21:48	0°♂	
greatest brilliancy	457 Aug 28 j 13:21	7°♂41'41	-2.7m				
direct	457 Sep 29 j 02:57	1°♂55'21		conjunction	462 Nov 28 j 09:03	7°♂53'59	0°-33'-28
asc. node	457 Dec 12 j 09:27	27°♂14'01		minimum elong	462 Nov 28 j 07:11	7°♂50'27	0°33'28
	457 Dec 17 j 11:55	0°♂			462 Dec 27 j 03:38	0°♂	
	458 Feb 06 j 20:12	0°♂		morning rise	463 Jan 29 j 13:32	26°♂07'45	
	458 Mar 27 j 16:36	0°♂		greatest brilliancy	463 Jan 31 j 00:39	27°♂16'46	1.2m
	458 May 15 j 01:46	0°♂			463 Feb 03 j 11:43	0°♂	
	458 Jul 02 j 01:20	0°♂			463 Mar 13 j 18:46	0°♂	
evening set	458 Jul 17 j 00:26	9°♂27'13			463 Apr 21 j 22:15	0°♂	
max. Earth dist.	458 Aug 16 j 16:53	29°♂04'20	2.64900 AU		463 Jun 01 j 19:45	0°♂	
	458 Aug 18 j 03:22	0°♂			463 Jul 15 j 12:17	0°♂	
				asc. node	463 Aug 04 j 06:13	12°♂42'57	
conjunction	458 Aug 31 j 17:39	8°♂49'21	0°59'21		463 Sep 01 j 22:58	0°♂	
minimum elong	458 Aug 31 j 18:40	8°♂51'02	0°59'20		463 Nov 05 j 21:40	0°♂	
	458 Oct 02 j 19:40	0°♂		retrograde	463 Dec 04 j 13:28	4°♂35'34	
morning rise	458 Oct 16 j 00:22	8°♂52'12			463 Dec 31 j 01:00	30°♂	
	458 Nov 15 j 20:37	0°♂		opposition	464 Jan 13 j 16:58	24°♂50'31	4°28'14
	458 Dec 28 j 07:21	0°♂		min. Earth dist.	464 Jan 13 j 05:39	25°♂01'50	0.67449 AU
desc. node	458 Dec 31 j 01:06	1°♂58'16		greatest brilliancy	464 Jan 13 j 13:04	24°♂54'25	-1.2m
	459 Feb 07 j 10:37	0°♂		direct	464 Feb 23 j 06:09	15°♂05'53	
	459 Mar 19 j 18:11	0°♂			464 Apr 20 j 18:27	0°♂	
	459 Apr 29 j 03:31	0°♂			464 Jun 17 j 12:09	0°♂	
	459 Jun 10 j 07:46	0°♂			464 Aug 04 j 18:18	0°♂	
	459 Jul 29 j 08:52	0°♂		desc. node	464 Aug 21 j 21:41	11°♂26'41	
retrograde	459 Sep 21 j 09:35	16°♂24'22			464 Sep 17 j 14:07	0°♂	
min. Earth dist.	459 Oct 21 j 19:39	10°♂03'16	0.51752 AU		464 Oct 28 j 11:24	0°♂	
opposition	459 Oct 29 j 11:01	7°♂11'10	0°-2'-40	evening set	464 Nov 29 j 13:42	24°♂37'05	
greatest brilliancy	456 Feb 19 j 17:58	21°♂26'02	13.6m		464 Dec 06 j 11:20	0°♂	
asc. node	459 Oct 30 j 08:30	6°♂51'03			465 Jan 13 j 13:26	0°♂	
	459 Nov 25 j 08:10	30°♂					
direct	459 Dec 03 j 04:37	29°♂35'28		conjunction	465 Feb 03 j 06:14	16°♂20'04	-1°-4'-22
	459 Dec 11 j 05:52	0°♂		minimum elong	465 Feb 03 j 07:15	16°♂22'04	1°04'23
	460 Feb 29 j 00:56	0°♂			465 Feb 20 j 16:40	0°♂	
	460 Apr 22 j 19:08	0°♂		max. Earth dist.	465 Mar 18 j 04:31	19°♂41'46	2.38648 AU
	460 Jun 11 j 21:57	0°♂			465 Mar 31 j 18:19	0°♂	
	460 Jul 29 j 18:27	0°♂		morning rise	465 Apr 13 j 18:13	9°♂43'37	

	465 May 11 j 12:21	0°♄		greatest brilliancy	470 May 16 j 12:51	24°♌54'00	-2.4m
asc. node	465 Jun 21 j 06:06	28°♄26'55		min. Earth dist.	470 May 23 j 20:51	22°♌32'23	0.44929 AU
	465 Jun 23 j 13:03	0°♄		direct	470 Jun 20 j 20:10	17°♌32'17	
	465 Aug 08 j 09:59	0°♄			470 Aug 05 j 21:06	0°♄	
	465 Sep 27 j 11:39	0°♄			470 Sep 25 j 06:55	0°♄	
	465 Nov 29 j 01:46	0°♄			470 Nov 06 j 18:58	0°♄	
retrograde	466 Jan 07 j 18:04	7°♄58'16			470 Dec 17 j 21:31	0°♄	
	466 Feb 13 j 00:18	30°♄50'10	4°21'22		471 Jan 28 j 12:36	0°♄	
opposition	466 Feb 16 j 00:02	28°♄50'10	4°21'22	asc. node	471 Feb 11 j 02:45	9°♄36'08	
greatest brilliancy	466 Feb 16 j 15:29	28°♄35'01	-1.3m		471 Mar 12 j 12:37	0°♄	
min. Earth dist.	466 Feb 19 j 10:02	27°♄29'49	0.65825 AU		471 Apr 26 j 04:09	0°♄	
direct	466 Mar 29 j 10:32	18°♄48'19		evening set	471 May 25 j 08:46	19°♄05'48	
	466 May 16 j 00:30	0°♄			471 Jun 11 j 05:47	0°♄	
desc. node	466 Jul 09 j 20:52	28°♄23'47					
	466 Jul 12 j 12:41	0°♄		conjunction	471 Jul 12 j 11:08	19°♄59'52	1°05'59
	466 Aug 27 j 12:54	0°♄		minimum elong	471 Jul 12 j 10:23	19°♄58'41	1°05'59
	466 Oct 08 j 02:09	0°♄		max. Earth dist.	471 Jul 16 j 00:09	22°♄15'25	2.67029 AU
	466 Nov 16 j 06:46	0°♄			471 Jul 28 j 03:49	0°♄	
	466 Dec 24 j 11:03	0°♄		morning rise	471 Aug 26 j 18:08	18°♄50'37	
	467 Jan 31 j 17:40	0°♄			471 Sep 13 j 06:04	0°♄	
evening set	467 Feb 08 j 04:54	5°♄46'48			471 Oct 30 j 01:49	0°♄	
	467 Mar 12 j 00:52	0°♄			471 Dec 15 j 13:55	0°♄	
					472 Jan 31 j 03:48	0°♄	
conjunction	467 Apr 13 j 00:00	23°♄30'28	0°-16'-17	desc. node	472 Feb 29 j 18:47	18°♄45'45	
minimum elong	467 Apr 13 j 01:08	23°♄32'30	0°16'18		472 Mar 19 j 00:05	0°♄	
	467 Apr 22 j 01:02	0°♄			472 May 12 j 16:33	0°♄	
asc. node	467 May 09 j 04:16	12°♄06'28		retrograde	472 Jun 29 j 04:03	12°♄25'05	
max. Earth dist.	467 May 22 j 11:50	21°♄20'58	2.51857 AU	min. Earth dist.	472 Jul 28 j 02:53	7°♄41'59	0.37434 AU
	467 Jun 04 j 03:34	0°♄		opposition	472 Jul 29 j 16:37	7°♄16'49	-6°-53'-28
morning rise	467 Jun 09 j 21:00	3°♄52'25		greatest brilliancy	472 Jul 29 j 07:56	7°♄22'36	-2.9m
	467 Jul 19 j 10:44	0°♄		direct	472 Aug 28 j 05:52	2°♄21'49	
	467 Sep 04 j 23:52	0°♄			472 Nov 12 j 18:19	0°♄	
	467 Oct 25 j 13:18	0°♄			472 Dec 29 j 00:42	28°♄06'37	
	467 Dec 23 j 04:43	0°♄		asc. node	473 Jan 01 j 00:26	0°♄	
retrograde	468 Feb 17 j 11:03	14°♄24'39			473 Feb 16 j 22:48	0°♄	
opposition	468 Mar 25 j 12:54	6°♄19'55	2°38'45		473 Apr 04 j 22:42	0°♄	
greatest brilliancy	468 Mar 26 j 12:43	5°♄57'41	-1.7m		473 May 22 j 09:33	0°♄	
min. Earth dist.	468 Apr 01 j 14:03	3°♄42'14	0.57728 AU	evening set	473 Jul 02 j 12:48	25°♄56'41	
	468 Apr 12 j 16:30	30°♄			473 Jul 08 j 22:36	0°♄	
direct	468 May 05 j 01:11	26°♄41'37		max. Earth dist.	473 Aug 07 j 09:25	18°♄44'15	2.66569 AU
desc. node	468 May 26 j 19:37	29°♄35'11					
	468 May 28 j 10:01	0°♄		conjunction	473 Aug 17 j 08:27	25°♄07'27	1°06'20
	468 Jul 30 j 23:24	0°♄		minimum elong	473 Aug 17 j 09:05	25°♄08'29	1°06'20
	468 Sep 13 j 18:43	0°♄			473 Aug 24 j 22:12	0°♄	
	468 Oct 24 j 05:52	0°♄		morning rise	473 Sep 30 j 23:48	24°♄10'26	
	468 Dec 02 j 04:06	0°♄			473 Oct 09 j 19:04	0°♄	
	469 Jan 10 j 01:58	0°♄			473 Nov 23 j 07:00	0°♄	
	469 Feb 19 j 00:31	0°♄			474 Jan 05 j 10:23	0°♄	
asc. node	469 Mar 26 j 03:22	25°♄23'48		desc. node	474 Jan 16 j 17:39	7°♄59'59	
	469 Apr 01 j 15:41	0°♄			474 Feb 16 j 11:00	0°♄	
evening set	469 Apr 09 j 01:18	5°♄11'25			474 Mar 29 j 20:40	0°♄	
	469 May 15 j 06:07	0°♄			474 May 10 j 19:03	0°♄	
					474 Jun 25 j 11:23	0°♄	
conjunction	469 Jun 01 j 22:29	11°♄48'30	0°38'13	retrograde	474 Sep 02 j 12:11	25°♄17'25	
minimum elong	469 Jun 01 j 21:02	11°♄46'06	0°38'12	min. Earth dist.	474 Sep 30 j 19:34	19°♄48'11	0.46543 AU
max. Earth dist.	469 Jun 21 j 12:24	24°♄40'53	2.62055 AU	opposition	474 Oct 08 j 23:57	16°♄55'17	-2°-3'-22
	469 Jun 29 j 16:29	0°♄		greatest brilliancy	474 Oct 08 j 03:00	17°♄13'46	-2.3m
morning rise	469 Jul 21 j 04:08	13°♄50'57		direct	474 Nov 10 j 20:47	10°♄08'31	
	469 Aug 15 j 13:15	0°♄		asc. node	474 Nov 15 j 23:47	10°♄18'41	
	469 Oct 02 j 12:05	0°♄			475 Jan 15 j 17:12	0°♄	
	469 Nov 20 j 19:11	0°♄			475 Mar 12 j 08:01	0°♄	
	470 Jan 12 j 10:24	0°♄			475 May 02 j 04:02	0°♄	
	470 Mar 27 j 21:36	0°♄			475 Jun 20 j 05:31	0°♄	
retrograde	470 Apr 12 j 14:53	1°♄26'23			475 Aug 06 j 16:44	0°♄	
desc. node	470 Apr 13 j 18:28	1°♄25'53		evening set	475 Aug 08 j 22:44	1°♄27'01	
	470 Apr 27 j 18:14	30°♄		max. Earth dist.	475 Sep 01 j 08:38	16°♄43'14	2.60754 AU
opposition	470 May 15 j 17:21	25°♄09'48	-1°-48'-13		475 Sep 21 j 07:15	0°♄	

conjunction	475 Sep 24 j 09:22	2°♄04'49	0°40'10		480 Aug 16 j 14:43	0°♄	
minimum elong	475 Sep 24 j 10:35	2°♄06'52	0°40'10		480 Oct 08 j 01:22	0°♄	
	475 Nov 03 j 21:57	0°♄		retrograde	480 Dec 24 j 18:21	25°♄05'25	
morning rise	475 Nov 10 j 21:49	4°♄56'21		opposition	481 Feb 02 j 11:48	15°♄40'20	4°33'40
desc. node	475 Dec 04 j 16:14	21°♄59'01		greatest brilliancy	481 Feb 02 j 19:54	15°♄32'19	-1.2m
	475 Dec 15 j 16:03	0°♄		min. Earth dist.	481 Feb 04 j 09:33	14°♄55'03	0.67244 AU
	476 Jan 24 j 22:40	0°♄		direct	481 Mar 15 j 17:51	5°♄41'46	
	476 Mar 04 j 07:23	0°♄			481 May 31 j 03:40	0°♄	
	476 Apr 12 j 13:08	0°♄			481 Jul 21 j 23:24	0°♄	
	476 May 22 j 19:12	0°♄		desc. node	481 Jul 26 j 12:21	2°♄53'26	
	476 Jul 04 j 22:25	0°♄			481 Sep 04 j 19:27	0°♄	
	476 Aug 25 j 14:49	0°♄			481 Oct 15 j 23:59	0°♄	
asc. node	476 Oct 02 j 23:35	13°♄10'25			481 Nov 24 j 01:31	0°♄	
retrograde	476 Oct 15 j 23:27	14°♄17'30			482 Jan 01 j 04:00	0°♄	
min. Earth dist.	476 Nov 18 j 15:51	6°♄43'32	0.58886 AU	evening set	482 Jan 11 j 07:47	8°♄01'14	
opposition	476 Nov 24 j 09:51	4°♄27'30	2°13'25	greatest brilliancy	482 Jan 25 j 11:52	19°♄10'16	1.2m
greatest brilliancy	476 Nov 23 j 16:57	4°♄44'12	-1.7m		482 Feb 08 j 08:13	0°♄	
	476 Dec 06 j 14:11	30°♄					
direct	476 Dec 31 j 11:44	25°♄54'57		conjunction	482 Mar 19 j 06:32	29°♄49'45	0°-40'-25
	477 Jan 27 j 17:22	0°♄		minimum elong	482 Mar 19 j 09:19	29°♄54'59	0°40'24
	477 Apr 06 j 19:33	0°♄			482 Mar 19 j 11:59	0°♄	
	477 May 29 j 22:47	0°♄			482 Apr 29 j 08:19	0°♄	
	477 Jul 17 j 20:36	0°♄		max. Earth dist.	482 May 05 j 20:43	4°♄39'08	2.46684 AU
	477 Sep 01 j 18:49	0°♄		morning rise	482 May 21 j 01:33	15°♄21'16	
evening set	477 Sep 17 j 07:51	10°♄34'14		asc. node	482 May 25 j 20:47	18°♄41'38	
max. Earth dist.	477 Oct 02 j 07:38	20°♄58'31	2.50176 AU		482 Jun 11 j 08:07	0°♄	
	477 Oct 15 j 02:13	0°♄			482 Jul 26 j 17:22	0°♄	
desc. node	477 Oct 21 j 15:21	4°♄41'00			482 Sep 12 j 21:04	0°♄	
					482 Nov 04 j 16:49	0°♄	
conjunction	477 Nov 07 j 05:24	16°♄42'57	0°-10'-26	retrograde	483 Jan 31 j 12:45	29°♄40'47	
minimum elong	477 Nov 07 j 04:51	16°♄41'56	0°10'27	opposition	483 Mar 10 j 15:18	21°♄07'12	3°32'46
behind sun begin	477 Nov 06 j 11:17	16°♄09'49		greatest brilliancy	483 Mar 11 j 14:57	20°♄44'34	-1.5m
behind sun end	477 Nov 07 j 22:24	17°♄14'06		min. Earth dist.	483 Mar 16 j 08:41	18°♄55'50	0.61624 AU
	477 Nov 25 j 04:14	0°♄		direct	483 Apr 20 j 18:53	11°♄12'25	
morning rise	478 Jan 02 j 16:30	29°♄16'49		desc. node	483 Jun 13 j 12:15	25°♄38'06	
	478 Jan 03 j 14:53	0°♄			483 Jun 22 j 12:46	0°♄	
	478 Feb 11 j 03:37	0°♄			483 Aug 12 j 08:02	0°♄	
	478 Mar 21 j 14:18	0°♄			483 Sep 24 j 05:38	0°♄	
	478 Apr 29 j 20:59	0°♄			483 Nov 02 j 23:31	0°♄	
	478 Jun 10 j 00:06	0°♄			483 Dec 11 j 11:49	0°♄	
	478 Jul 24 j 09:05	0°♄			484 Jan 19 j 01:29	0°♄	
asc. node	478 Aug 20 j 22:34	16°♄56'29			484 Feb 27 j 16:05	0°♄	
	478 Sep 13 j 14:08	0°♄		evening set	484 Mar 18 j 11:46	14°♄34'00	
retrograde	478 Nov 21 j 05:08	21°♄34'36			484 Apr 08 j 23:44	0°♄	
min. Earth dist.	478 Dec 29 j 10:10	12°♄28'54	0.66282 AU	asc. node	484 Apr 11 j 19:00	1°♄59'03	
opposition	478 Dec 31 j 09:41	11°♄41'15	4°09'10				
greatest brilliancy	478 Dec 30 j 23:00	11°♄51'59	-1.3m	conjunction	484 May 14 j 20:56	24°♄56'23	0°19'51
direct	479 Feb 09 j 05:17	2°♄10'49		minimum elong	484 May 14 j 19:55	24°♄54'39	0°19'50
	479 May 05 j 00:25	0°♄			484 May 22 j 07:49	0°♄	
	479 Jun 27 j 06:09	0°♄		max. Earth dist.	484 Jun 10 j 14:55	12°♄55'41	2.58653 AU
	479 Aug 13 j 11:24	0°♄		morning rise	484 Jul 05 j 19:00	29°♄27'23	
desc. node	479 Sep 08 j 13:55	17°♄43'38			484 Jul 06 j 15:05	0°♄	
	479 Sep 26 j 00:33	0°♄			484 Aug 22 j 15:03	0°♄	
	479 Nov 05 j 21:23	0°♄			484 Oct 10 j 06:10	0°♄	
evening set	479 Nov 06 j 10:07	0°♄23'59			484 Nov 30 j 13:23	0°♄	
max. Earth dist.	479 Dec 11 j 11:25	27°♄17'27	2.37966 AU		485 Jan 30 j 02:11	0°♄	
	479 Dec 14 j 22:52	0°♄		retrograde	485 Mar 19 j 12:42	11°♄13'32	
				opposition	485 Apr 23 j 09:23	4°♄08'02	0°21'45
conjunction	480 Jan 06 j 17:18	17°♄51'53	-1°-1'-27	greatest brilliancy	485 Apr 23 j 10:32	4°♄07'02	-2.1m
minimum elong	480 Jan 06 j 15:27	17°♄48'14	1°01'28	desc. node	485 Apr 30 j 11:18	1°♄39'26	
	480 Jan 22 j 02:29	0°♄		min. Earth dist.	485 May 01 j 18:45	1°♄12'32	0.50200 AU
	480 Feb 29 j 06:09	0°♄			485 May 05 j 10:49	30°♄	
morning rise	480 Mar 16 j 10:00	12°♄32'13		direct	485 May 31 j 19:55	25°♄25'25	
	480 Apr 08 j 07:10	0°♄			485 Jun 27 j 20:13	0°♄	
	480 May 19 j 00:42	0°♄			485 Aug 25 j 15:52	0°♄	
	480 Jul 01 j 03:56	0°♄			485 Oct 08 j 01:08	0°♄	
asc. node	480 Jul 07 j 21:15	4°♄29'47			485 Nov 17 j 08:36	0°♄	

	485 Dec 27 j 05:17	0° H			490 Nov 11 j 02:05	0° M		
	486 Feb 05 j 22:39	0° Y		desc. node	490 Dec 21 j 08:23	28° M 36'02		
asc. node	486 Feb 27 j 17:34	15° Y 36'34			490 Dec 23 j 06:48	0° J		
	486 Mar 20 j 06:02	0° B			491 Feb 02 j 01:57	0° Z		
	486 May 03 j 09:09	0° II			491 Mar 14 j 00:00	0° \approx		
evening set	486 May 08 j 14:31	3° II 28'27			491 Apr 22 j 20:30	0° H		
	486 Jun 18 j 03:03	0° S			491 Jun 03 j 01:13	0° Y		
					491 Jul 18 j 16:47	0° B		
conjunction	486 Jun 27 j 11:34	6° S 02'13	0°58'35	retrograde	491 Oct 01 j 04:29	27° B 27'40		
minimum elong	486 Jun 27 j 10:22	6° S 00'16	0°58'35	asc. node	491 Oct 20 j 14:56	24° B 43'19		
max. Earth dist.	486 Jul 06 j 23:10	12° S 07'47	2.65736 AU	min. Earth dist.	491 Nov 01 j 18:58	20° B 38'55	0.54472 AU	
	486 Aug 03 j 22:49	0° Q		opposition	491 Nov 08 j 20:04	17° B 56'30	0°54'22	
morning rise	486 Aug 12 j 21:06	5° Q 40'34		greatest brilliancy	491 Nov 08 j 10:48	18° B 05'24	-1.9m	
	486 Sep 20 j 06:17	0° M		direct	491 Dec 14 j 11:32	9° B 57'58		
	486 Nov 06 j 18:35	0° A			492 Feb 20 j 03:29	0° II		
	486 Dec 24 j 18:29	0° M			492 Apr 16 j 20:11	0° S		
	487 Feb 12 j 13:35	0° J			492 Jun 06 j 20:04	0° Q		
desc. node	487 Mar 18 j 09:48	18° J 40'01			492 Jul 25 j 00:40	0° M		
	487 Apr 11 j 07:46	0° Z		evening set	492 Aug 31 j 21:50	24° M 43'43		
retrograde	487 May 28 j 20:21	11° Z 35'56			492 Sep 08 j 18:31	0° A		
opposition	487 Jun 28 j 05:36	6° Z 31'07	-5°-46'-30	max. Earth dist.	492 Sep 18 j 10:44	6° A 33'19	2.54812 AU	
greatest brilliancy	487 Jun 29 j 05:24	6° Z 14'49	-2.8m					
min. Earth dist.	487 Jul 02 j 03:50	5° Z 26'40	0.38524 AU	conjunction	492 Oct 19 j 11:31	28° A 06'02	0°11'36	
direct	487 Jul 29 j 17:14	0° Z 58'57		minimum elong	492 Oct 19 j 12:01	28° A 06'56	0°11'36	
	487 Oct 14 j 04:52	0° \approx		behind sun begin	492 Oct 18 j 21:01	27° A 40'26		
	487 Nov 29 j 19:17	0° H		behind sun end	492 Oct 20 j 03:02	28° A 33'27		
	488 Jan 13 j 05:10	0° Y			492 Oct 22 j 03:54	0° M		
asc. node	488 Jan 15 j 17:13	1° Y 41'26		desc. node	492 Nov 07 j 06:56	11° M 32'57		
	488 Feb 26 j 23:11	0° B			492 Dec 02 j 11:22	0° J		
	488 Apr 12 j 18:05	0° II		morning rise	492 Dec 10 j 11:07	5° J 57'14		
	488 May 29 j 12:36	0° S			493 Jan 11 j 04:40	0° Z		
evening set	488 Jun 17 j 19:19	12° S 15'27			493 Feb 18 j 23:46	0° \approx		
	488 Jul 15 j 17:54	0° Q			493 Mar 29 j 15:49	0° H		
max. Earth dist.	488 Jul 29 j 05:41	8° Q 35'01	2.67392 AU		493 May 08 j 03:50	0° Y		
					493 Jun 18 j 16:53	0° B		
conjunction	488 Aug 03 j 03:59	11° Q 43'30	1°09'22		493 Aug 03 j 08:03	0° II		
minimum elong	488 Aug 03 j 04:07	11° Q 43'43	1°09'22	asc. node	493 Sep 06 j 14:24	19° II 16'56		
	488 Aug 31 j 16:58	0° M			493 Sep 30 j 14:57	0° S		
morning rise	488 Sep 16 j 16:35	10° M 19'02		retrograde	493 Nov 07 j 15:08	8° S 01'38		
	488 Oct 16 j 20:33	0° A			493 Dec 12 j 20:32	30° R II		
	488 Nov 30 j 22:42	0° M		min. Earth dist.	493 Dec 14 j 04:44	29° II 28'01	0.64130 AU	
	489 Jan 14 j 00:41	0° J		opposition	493 Dec 17 j 16:26	28° II 04'10	3°37'00	
desc. node	489 Feb 02 j 09:20	13° J 21'08		greatest brilliancy	493 Dec 17 j 00:35	28° II 20'03	-1.4m	
	489 Feb 26 j 09:07	0° Z		direct	494 Jan 25 j 13:55	18° II 52'09		
	489 Apr 10 j 17:03	0° \approx			494 Mar 15 j 00:39	0° S		
	489 May 26 j 07:51	0° H			494 May 15 j 09:47	0° Q		
	489 Aug 07 j 03:16	0° Y			494 Jul 05 j 07:56	0° M		
retrograde	489 Aug 11 j 12:09	0° Y 08'24			494 Aug 20 j 21:30	0° A		
	489 Aug 15 j 20:46	30° R H		desc. node	494 Sep 25 j 06:15	24° A 18'15		
min. Earth dist.	489 Sep 07 j 08:03	25° H 23'45	0.41681 AU		494 Oct 03 j 06:56	0° M		
greatest brilliancy	489 Sep 13 j 05:57	23° H 31'05	-2.6m	evening set	494 Oct 16 j 04:22	9° M 16'59		
opposition	489 Sep 14 j 16:33	23° H 03'25	-4°-25'-28	max. Earth dist.	494 Nov 02 j 15:28	22° M 06'34	2.42306 AU	
direct	489 Oct 15 j 17:05	17° H 12'11			494 Nov 13 j 04:56	0° J		
asc. node	489 Dec 02 j 16:34	29° H 17'34						
	489 Dec 04 j 07:35	0° Y		conjunction	494 Dec 11 j 17:24	21° J 44'31	0°-45'-43	
	490 Jan 30 j 11:25	0° B		minimum elong	494 Dec 11 j 15:00	21° J 39'54	0°45'42	
	490 Mar 21 j 22:18	0° II			494 Dec 22 j 09:07	0° Z		
	490 May 10 j 00:15	0° S			495 Jan 29 j 15:27	0° \approx		
	490 Jun 27 j 07:46	0° Q		morning rise	495 Feb 15 j 05:18	13° \approx 02'53		
evening set	490 Jul 25 j 07:55	17° Q 41'32			495 Mar 08 j 20:54	0° H		
	490 Aug 13 j 12:46	0° M			495 Apr 16 j 22:44	0° Y		
max. Earth dist.	490 Aug 22 j 08:34	5° M 42'41	2.63647 AU		495 May 27 j 17:38	0° B		
					495 Jul 10 j 02:54	0° II		
conjunction	490 Sep 09 j 04:03	17° M 21'47	0°53'26	asc. node	495 Jul 25 j 13:39	10° II 07'38		
minimum elong	490 Sep 09 j 05:14	17° M 23'43	0°53'25		495 Aug 26 j 13:33	0° S		
	490 Sep 28 j 04:40	0° A			495 Oct 23 j 00:07	0° Q		
morning rise	490 Oct 25 j 00:58	18° A 12'12		retrograde	495 Dec 12 j 05:32	12° Q 21'28		

opposition	496 Jan 21 j 06:28	2°♂42'42	4°33'38		501 Jan 04 j 20:35	0°♄	
greatest brilliancy	496 Jan 21 j 06:46	2°♂42'23	-1.2m		501 Feb 14 j 00:05	0°♂	
min. Earth dist.	496 Jan 21 j 15:34	2°♂33'37	0.67665 AU	asc. node	501 Mar 16 j 10:50	21°♂58'53	
	496 Jan 28 j 03:48	30°♄♄			501 Mar 27 j 19:32	0°♄	
direct	496 Mar 02 j 02:51	22°♄51'58		evening set	501 Apr 20 j 06:33	16°♄15'26	
	496 Apr 08 j 15:21	0°♂			501 May 10 j 13:00	0°♂	
	496 Jun 11 j 06:08	0°♄					
	496 Jul 30 j 12:42	0°♄		conjunction	501 Jun 11 j 13:09	21°♂12'40	0°46'54
desc. node	496 Aug 12 j 05:37	8°♄21'34		minimum elong	501 Jun 11 j 11:41	21°♂10'15	0°46'54
	496 Sep 12 j 16:28	0°♄			501 Jun 25 j 00:53	0°♄	
	496 Oct 23 j 16:22	0°♄		max. Earth dist.	501 Jun 27 j 08:56	1°♄30'52	2.63582 AU
	496 Dec 01 j 16:41	0°♄		morning rise	501 Jul 29 j 14:37	22°♄13'27	
evening set	496 Dec 14 j 10:13	9°♄59'11			501 Aug 10 j 20:03	0°♂	
	497 Jan 08 j 18:30	0°♄			501 Sep 27 j 11:54	0°♄	
	497 Feb 15 j 21:21	0°♄			501 Nov 15 j 00:09	0°♄	
					502 Jan 04 j 09:58	0°♄	
conjunction	497 Feb 19 j 15:04	2°♄54'49	0°-59'-4		502 Mar 02 j 19:26	0°♄	
minimum elong	497 Feb 19 j 17:33	2°♄59'40	0°59'03	desc. node	502 Apr 04 j 02:09	11°♄39'46	
	497 Mar 26 j 22:43	0°♂		retrograde	502 Apr 27 j 23:35	14°♄53'38	
max. Earth dist.	497 Apr 11 j 21:02	11°♂54'12	2.41306 AU	opposition	502 May 30 j 01:46	9°♄06'06	-3°-15'-24
morning rise	497 Apr 28 j 07:11	23°♂56'47		greatest brilliancy	502 May 31 j 06:23	8°♄44'17	-2.5m
	497 May 06 j 16:27	0°♄		min. Earth dist.	502 Jun 06 j 10:39	6°♄52'06	0.42232 AU
asc. node	497 Jun 11 j 11:40	25°♄07'15		direct	502 Jul 03 j 13:28	2°♄13'43	
	497 Jun 18 j 15:20	0°♂			502 Sep 15 j 03:04	0°♄	
	497 Aug 03 j 05:53	0°♄			502 Oct 30 j 06:29	0°♄	
	497 Sep 21 j 09:08	0°♂			502 Dec 11 j 12:39	0°♄	
	497 Nov 17 j 12:35	0°♄			503 Jan 22 j 20:12	0°♂	
retrograde	498 Jan 16 j 02:53	15°♄58'51		asc. node	503 Feb 01 j 09:15	6°♂40'10	
opposition	498 Feb 24 j 00:23	7°♄01'54	4°07'48		503 Mar 07 j 07:32	0°♄	
greatest brilliancy	498 Feb 24 j 19:27	6°♄43'21	-1.3m		503 Apr 21 j 06:40	0°♂	
min. Earth dist.	498 Feb 28 j 06:34	5°♄22'28	0.64611 AU	evening set	503 Jun 03 j 11:25	28°♂01'39	
	498 Mar 15 j 22:21	30°♄♄			503 Jun 06 j 13:09	0°♄	
direct	498 Apr 06 j 10:09	27°♂00'34					
	498 Apr 29 j 06:47	0°♄		conjunction	503 Jul 20 j 19:52	28°♄16'27	1°08'23
desc. node	498 Jun 30 j 04:15	26°♄50'21		minimum elong	503 Jul 20 j 19:26	28°♄15'47	1°08'24
	498 Jul 05 j 16:53	0°♄		max. Earth dist.	503 Jul 21 j 06:13	28°♄32'56	2.67383 AU
	498 Aug 21 j 22:21	0°♄			503 Jul 23 j 12:55	0°♂	
	498 Oct 02 j 21:25	0°♄		morning rise	503 Sep 03 j 17:17	26°♂54'06	
	498 Nov 11 j 06:07	0°♄			503 Sep 08 j 13:25	0°♄	
	498 Dec 19 j 12:43	0°♄			503 Oct 25 j 02:29	0°♄	
	499 Jan 26 j 21:02	0°♄			503 Dec 10 j 00:21	0°♄	
evening set	499 Feb 23 j 02:11	20°♄51'36		desc. node	504 Jan 24 j 11:56	0°♄	
	499 Mar 07 j 05:39	0°♂			504 Feb 20 j 01:12	17°♄30'36	
	499 Apr 17 j 07:11	0°♄			504 Mar 10 j 03:22	0°♄	
					504 Apr 26 j 21:53	0°♄	
conjunction	499 Apr 25 j 15:20	5°♄55'07	0°-2°-24		504 Jul 06 j 21:23	0°♄	
minimum elong	499 Apr 25 j 15:29	5°♄55'24	0°02'25	retrograde	504 Jul 16 j 05:03	0°♄35'07	
behind sun begin	499 Apr 24 j 15:21	5°♄12'47			504 Jul 25 j 10:33	30°♄♄	
behind sun end	499 Apr 26 j 15:37	6°♄37'59		min. Earth dist.	504 Aug 12 j 08:53	26°♄07'23	0.38230 AU
asc. node	499 Apr 29 j 11:10	8°♄36'56		opposition	504 Aug 16 j 15:42	24°♄55'51	-6°-27'-25
max. Earth dist.	499 May 30 j 11:19	0°♂01'49	2.54451 AU	greatest brilliancy	504 Aug 15 j 14:42	25°♄13'18	-2.8m
	499 May 30 j 10:15	0°♂		direct	504 Sep 15 j 07:47	19°♄52'07	
morning rise	499 Jun 20 j 03:42	13°♂54'49			504 Oct 27 j 21:12	0°♄	
	499 Jul 14 j 16:03	0°♄		asc. node	504 Dec 19 j 08:08	27°♄25'17	
	499 Aug 30 j 22:21	0°♂			504 Dec 23 j 16:57	0°♂	
	499 Oct 19 j 14:13	0°♄			505 Feb 10 j 15:52	0°♄	
	499 Dec 13 j 09:50	0°♄			505 Mar 30 j 13:38	0°♂	
retrograde	500 Feb 27 j 23:44	23°♄52'30			505 May 17 j 11:56	0°♄	
opposition	500 Apr 04 j 08:28	16°♄06'45	1°56'49		505 Jul 04 j 06:36	0°♂	
greatest brilliancy	500 Apr 05 j 04:58	15°♄47'58	-1.8m	evening set	505 Jul 10 j 20:14	4°♂09'01	
min. Earth dist.	500 Apr 12 j 00:17	13°♄18'29	0.55213 AU	max. Earth dist.	505 Aug 12 j 18:30	25°♂08'00	2.65749 AU
direct	500 May 14 j 06:47	6°♄43'10			505 Aug 20 j 07:53	0°♄	
desc. node	500 May 17 j 02:55	6°♄46'25					
	500 Jul 22 j 04:12	0°♄		conjunction	505 Aug 25 j 13:16	3°♄22'35	1°02'45
	500 Sep 07 j 05:14	0°♄		minimum elong	505 Aug 25 j 14:10	3°♄24'02	1°02'44
	500 Oct 18 j 09:27	0°♄			505 Oct 05 j 02:53	0°♄	
	500 Nov 26 j 16:31	0°♄		morning rise	505 Oct 09 j 11:32	2°♄54'33	

	505 Nov 18 j 09:09	0°♄		greatest brilliancy	511 Jan 07 j 19:14	19°♄51'12	-1.3m
	505 Dec 31 j 03:36	0°♂		direct	511 Feb 17 j 07:43	10°♄05'12	
desc. node	506 Jan 07 j 00:32	4°♂54'42			511 Apr 26 j 23:55	0°♄	
	506 Feb 10 j 15:56	0°♄			511 Jun 21 j 14:28	0°♄	
	506 Mar 23 j 09:57	0°♄			511 Aug 08 j 11:02	0°♄	
	506 May 03 j 08:08	0°♄		desc. node	511 Aug 29 j 21:06	14°♄23'51	
	506 Jun 15 j 13:06	0°♄			511 Sep 21 j 05:13	0°♄	
retrograde	506 Aug 08 j 14:38	0°♄			511 Nov 01 j 03:29	0°♂	
	506 Sep 13 j 13:57	8°♂07'12		evening set	511 Nov 19 j 16:05	14°♂05'49	
min. Earth dist.	506 Oct 13 j 00:08	2°♂09'13	0.49445 AU		511 Dec 10 j 04:42	0°♄	
	506 Oct 18 j 21:35	30°♄			512 Jan 17 j 07:39	0°♄	
opposition	506 Oct 20 j 23:50	29°♄13'45	0°-50'-51				
greatest brilliancy	506 Oct 20 j 14:47	29°♄22'03	-2.2m	conjunction	512 Jan 22 j 14:02	4°♄09'32	-1°-5'00
asc. node	506 Nov 06 j 07:35	24°♄04'11		minimum elong	512 Jan 22 j 13:40	4°♄08'48	1°05'02
direct	506 Nov 23 j 22:43	21°♄58'36		max. Earth dist.	512 Feb 07 j 03:39	16°♄26'17	2.37261 AU
	507 Jan 01 j 16:51	0°♄			512 Feb 24 j 10:48	0°♄	
	507 Mar 05 j 08:28	0°♄		morning rise	512 Apr 01 j 18:40	28°♄43'18	
	507 Apr 26 j 16:32	0°♄			512 Apr 03 j 11:15	0°♄	
	507 Jun 15 j 07:59	0°♄			512 May 14 j 03:42	0°♄	
	507 Aug 02 j 01:02	0°♄			512 Jun 26 j 03:36	0°♄	
evening set	507 Aug 17 j 10:44	9°♄57'50		asc. node	512 Jun 28 j 04:58	1°♄23'23	
max. Earth dist.	507 Sep 07 j 14:36	23°♄54'26	2.58845 AU		512 Aug 11 j 03:38	0°♄	
	507 Sep 16 j 17:04	0°♄			512 Sep 30 j 22:13	0°♄	
					512 Dec 09 j 22:59	0°♄	
conjunction	507 Oct 03 j 11:02	11°♄22'15	0°30'46	retrograde	513 Jan 01 j 17:22	2°♄53'56	
minimum elong	507 Oct 03 j 12:07	11°♄24'06	0°30'45		513 Jan 22 j 22:59	30°♄	
	507 Oct 30 j 06:06	0°♄		opposition	513 Feb 10 j 04:50	23°♄37'51	4°27'52
morning rise	507 Nov 21 j 06:21	15°♄42'49		greatest brilliancy	513 Feb 10 j 17:08	23°♄25'44	-1.3m
desc. node	507 Nov 25 j 00:06	18°♄25'12		min. Earth dist.	513 Feb 12 j 22:45	22°♄32'54	0.66588 AU
	507 Dec 10 j 20:30	0°♄		direct	513 Mar 23 j 13:45	13°♄36'42	
	508 Jan 19 j 21:58	0°♄			513 May 22 j 08:54	0°♄	
	508 Feb 28 j 01:02	0°♄		desc. node	513 Jul 16 j 20:10	0°♄29'31	
	508 Apr 07 j 00:37	0°♄			513 Jul 16 j 01:04	0°♄	
	508 May 16 j 21:38	0°♄			513 Aug 30 j 13:40	0°♄	
	508 Jun 28 j 05:11	0°♄			513 Oct 11 j 00:10	0°♄	
	508 Aug 15 j 11:40	0°♄			513 Nov 19 j 03:51	0°♄	
asc. node	508 Sep 23 j 05:43	17°♄47'21			513 Dec 27 j 07:17	0°♄	
retrograde	508 Oct 24 j 12:07	23°♄35'38		evening set	514 Jan 27 j 04:25	24°♄17'08	
min. Earth dist.	508 Nov 28 j 06:21	15°♄38'38	0.61021 AU		514 Feb 03 j 12:20	0°♄	
greatest brilliancy	508 Dec 02 j 11:17	13°♄58'17	-1.5m		514 Mar 14 j 16:57	0°♄	
opposition	508 Dec 03 j 05:15	13°♄40'23	2°49'28				
direct	509 Jan 09 j 23:46	4°♄51'58		conjunction	514 Apr 02 j 15:26	14°♄04'24	0°-26'-51
	509 Mar 30 j 05:53	0°♄		minimum elong	514 Apr 02 j 17:21	14°♄07'55	0°26'50
	509 May 24 j 09:32	0°♄			514 Apr 24 j 14:08	0°♄	
	509 Jul 12 j 22:24	0°♄		max. Earth dist.	514 May 15 j 20:44	15°♄02'25	2.49601 AU
	509 Aug 28 j 02:11	0°♄		asc. node	514 May 16 j 03:19	15°♄13'54	
evening set	509 Sep 27 j 05:48	20°♄40'21		morning rise	514 Jun 01 j 15:22	26°♄37'44	
	509 Oct 10 j 10:45	0°♄			514 Jun 06 j 14:00	0°♄	
desc. node	509 Oct 11 j 22:45	1°♄04'11			514 Jul 21 j 20:25	0°♄	
max. Earth dist.	509 Oct 11 j 19:10	0°♄57'46	2.47440 AU		514 Sep 07 j 13:31	0°♄	
					514 Oct 28 j 20:35	0°♄	
conjunction	509 Nov 18 j 19:51	28°♄45'08	0°-23'-38		514 Dec 30 j 19:46	0°♄	
minimum elong	509 Nov 18 j 18:33	28°♄42'42	0°23'38	retrograde	515 Feb 09 j 23:40	8°♄23'51	
	509 Nov 20 j 11:55	0°♄		opposition	515 Mar 19 j 12:59	0°♄05'30	3°03'47
	509 Dec 29 j 20:29	0°♄			515 Mar 19 j 18:49	30°♄	
morning rise	510 Jan 17 j 08:19	14°♄23'05		greatest brilliancy	515 Mar 20 j 13:18	29°♄42'30	-1.6m
	510 Feb 06 j 06:46	0°♄		min. Earth dist.	515 Mar 26 j 00:08	27°♄38'54	0.59581 AU
	510 Mar 16 j 15:03	0°♄		direct	515 Apr 29 j 09:00	20°♄18'14	
greatest brilliancy	510 Mar 30 j 04:23	10°♄29'39	1.2m	desc. node	515 Jun 03 j 19:06	27°♄19'40	
	510 Apr 24 j 18:46	0°♄			515 Jun 10 j 17:53	0°♄	
	510 Jun 04 j 16:54	0°♄			515 Aug 05 j 12:45	0°♄	
	510 Jul 18 j 13:15	0°♄			515 Sep 18 j 10:48	0°♄	
asc. node	510 Aug 11 j 05:01	15°♄00'25			515 Oct 28 j 14:10	0°♄	
	510 Sep 05 j 18:55	0°♄			515 Dec 06 j 07:35	0°♄	
retrograde	510 Nov 28 j 22:19	29°♄33'23			516 Jan 14 j 01:01	0°♄	
min. Earth dist.	511 Jan 06 j 22:56	20°♄11'33	0.67057 AU		516 Feb 22 j 18:42	0°♄	
opposition	511 Jan 08 j 02:19	19°♄44'06	4°21'51	evening set	516 Mar 31 j 00:34	27°♄01'52	

asc. node	516 Apr 02 j 02:09	28°♄29'50			521 May 16 j 04:41	0°♄	
	516 Apr 04 j 05:05	0°♄			521 Jul 04 j 08:47	0°♄	
	516 May 17 j 15:16	0°♄		retrograde	521 Aug 24 j 10:31	15°♄20'44	
				min. Earth dist.	521 Sep 20 j 21:53	10°♄13'57	0.44258 AU
conjunction	516 May 25 j 09:11	5°♄12'49	0°30'58	opposition	521 Sep 28 j 23:35	7°♄30'25	-3°-3'-9
minimum elong	516 May 25 j 07:50	5°♄10'33	0°30'57	greatest brilliancy	521 Sep 27 j 18:56	7°♄54'42	-2.4m
max. Earth dist.	516 Jun 17 j 00:28	20°♄14'13	2.60631 AU	direct	521 Oct 30 j 23:44	1°♄08'18	
	516 Jul 01 j 23:01	0°♄		asc. node	521 Nov 22 j 22:20	4°♄17'00	
morning rise	516 Jul 14 j 17:17	8°♄15'21			522 Jan 21 j 21:35	0°♄	
	516 Aug 17 j 20:00	0°♄			522 Mar 15 j 19:27	0°♄	
	516 Oct 05 j 00:34	0°♄			522 May 04 j 19:20	0°♄	
	516 Nov 24 j 00:45	0°♄			522 Jun 22 j 12:46	0°♄	
	517 Jan 17 j 23:52	0°♄		evening set	522 Aug 02 j 16:05	25°♄59'20	
retrograde	517 Apr 01 j 15:39	22°♄43'42			522 Aug 08 j 21:52	0°♄	
desc. node	517 Apr 20 j 17:29	20°♄26'57		max. Earth dist.	522 Aug 28 j 03:28	12°♄29'10	2.62150 AU
opposition	517 May 05 j 13:53	16°♄04'12	0°-48'-15				
greatest brilliancy	517 May 05 j 23:32	15°♄56'05	-2.2m	conjunction	522 Sep 17 j 18:28	26°♄06'53	0°46'13
min. Earth dist.	517 May 13 j 23:45	13°♄15'07	0.47272 AU	minimum elong	522 Sep 17 j 19:43	26°♄08'58	0°46'12
direct	517 Jun 11 j 19:38	7°♄54'39			522 Sep 23 j 13:55	0°♄	
	517 Aug 15 j 09:59	0°♄		morning rise	522 Nov 03 j 10:39	27°♄57'56	
	517 Sep 30 j 16:34	0°♄			522 Nov 06 j 08:27	0°♄	
	517 Nov 11 j 00:46	0°♄		desc. node	522 Dec 11 j 15:36	25°♄08'43	
	517 Dec 21 j 11:49	0°♄			522 Dec 18 j 08:02	0°♄	
	518 Jan 31 j 15:16	0°♄			523 Jan 27 j 20:36	0°♄	
asc. node	518 Feb 18 j 01:41	12°♄24'57			523 Mar 08 j 11:03	0°♄	
	518 Mar 15 j 06:07	0°♄			523 Apr 16 j 22:29	0°♄	
	518 Apr 28 j 14:37	0°♄			523 May 27 j 11:39	0°♄	
evening set	518 May 18 j 07:39	12°♄59'30			523 Jul 10 j 08:22	0°♄	
	518 Jun 13 j 11:47	0°♄			523 Sep 04 j 09:22	0°♄	
				retrograde	523 Oct 10 j 10:01	7°♄45'19	
conjunction	518 Jul 06 j 03:24	14°♄33'22	1°03'22	asc. node	523 Oct 10 j 22:27	7°♄45'12	
minimum elong	518 Jul 06 j 02:26	14°♄31'50	1°03'22	min. Earth dist.	523 Nov 12 j 04:20	0°♄30'33	0.56994 AU
max. Earth dist.	518 Jul 12 j 08:57	18°♄32'26	2.66556 AU		523 Nov 13 j 11:54	30°♄	
	518 Jul 30 j 08:08	0°♄		opposition	523 Nov 18 j 12:23	28°♄01'57	1°43'02
morning rise	518 Aug 20 j 20:42	13°♄41'27		greatest brilliancy	523 Nov 17 j 21:29	28°♄16'33	-1.7m
	518 Sep 15 j 12:28	0°♄		direct	523 Dec 24 j 22:56	19°♄43'37	
	518 Nov 01 j 15:01	0°♄			524 Feb 08 j 12:17	0°♄	
	518 Dec 18 j 17:06	0°♄			524 Apr 10 j 10:25	0°♄	
	519 Feb 04 j 10:44	0°♄			524 Jun 01 j 14:16	0°♄	
desc. node	519 Mar 08 j 17:39	19°♄32'09			524 Jul 20 j 05:26	0°♄	
	519 Mar 26 j 23:57	0°♄			524 Sep 04 j 03:01	0°♄	
retrograde	519 Jun 16 j 02:44	29°♄03'18		evening set	524 Sep 10 j 02:53	4°♄02'48	
opposition	519 Jul 16 j 07:58	24°♄04'56	-6°-41'-23	max. Earth dist.	524 Sep 26 j 02:27	14°♄59'19	2.52320 AU
greatest brilliancy	519 Jul 16 j 15:24	23°♄59'59	-2.9m		524 Oct 17 j 12:26	0°♄	
min. Earth dist.	519 Jul 17 j 06:40	23°♄49'51	0.37514 AU	desc. node	524 Oct 28 j 14:23	7°♄55'24	
direct	519 Aug 15 j 11:14	19°♄01'47					
	519 Sep 27 j 23:30	0°♄		conjunction	524 Oct 29 j 20:42	8°♄49'59	0°00'-48
	519 Nov 20 j 21:25	0°♄		minimum elong	524 Oct 29 j 20:42	8°♄49'59	0°00'48
asc. node	520 Jan 05 j 23:37	29°♄41'31		behind sun begin	524 Oct 28 j 22:59	8°♄10'54	
	520 Jan 06 j 10:54	0°♄		behind sun end	524 Oct 30 j 18:25	9°♄29'07	
	520 Feb 21 j 05:57	0°♄			524 Nov 27 j 17:52	0°♄	
	520 Apr 07 j 15:08	0°♄		morning rise	524 Dec 23 j 03:35	19°♄08'19	
	520 May 24 j 17:49	0°♄			525 Jan 06 j 08:03	0°♄	
evening set	520 Jun 26 j 07:07	20°♄36'11			525 Feb 13 j 23:39	0°♄	
	520 Jul 11 j 03:02	0°♄			525 Mar 24 j 12:22	0°♄	
max. Earth dist.	520 Aug 03 j 12:38	14°♄53'00	2.67045 AU		525 May 02 j 20:18	0°♄	
					525 Jun 13 j 01:33	0°♄	
conjunction	520 Aug 11 j 06:59	19°♄50'42	1°08'04		525 Jul 27 j 18:51	0°♄	
minimum elong	520 Aug 11 j 07:26	19°♄51'25	1°08'04	asc. node	525 Aug 27 j 21:42	18°♄36'03	
	520 Aug 27 j 02:38	0°♄			525 Sep 18 j 19:36	0°♄	
morning rise	520 Sep 24 j 19:24	18°♄37'16		retrograde	525 Nov 15 j 12:16	16°♄20'32	
	520 Oct 12 j 02:57	0°♄		min. Earth dist.	525 Dec 22 j 23:41	7°♄28'32	0.65439 AU
	520 Nov 25 j 21:31	0°♄		opposition	525 Dec 25 j 15:16	6°♄24'43	3°57'32
	521 Jan 08 j 10:54	0°♄		greatest brilliancy	525 Dec 25 j 01:58	6°♄38'05	-1.3m
desc. node	521 Jan 23 j 17:06	10°♄41'17			526 Jan 12 j 16:16	30°♄	
	521 Feb 20 j 00:25	0°♄		direct	526 Feb 03 j 00:56	27°♄01'59	
	521 Apr 03 j 03:06	0°♄			526 Feb 26 j 07:10	0°♄	

	526 May 08 j 19:18	0°♈		behind sun end	531 May 08 j 03:05	17°♊56'49	
	526 Jun 30 j 00:44	0°♎			531 May 25 j 17:37	0°♈	
	526 Aug 16 j 00:36	0°♊		max. Earth dist.	531 Jun 06 j 14:53	8°♈00'50	2.56873 AU
desc. node	526 Sep 15 j 13:21	20°♊49'18		morning rise	531 Jun 29 j 19:56	23°♈23'38	
	526 Sep 28 j 13:31	0°♈			531 Jul 09 j 22:51	0°♊	
evening set	526 Oct 27 j 20:54	21°♈18'54			531 Aug 26 j 00:13	0°♈	
	526 Nov 08 j 12:04	0°♊			531 Oct 13 j 23:55	0°♎	
max. Earth dist.	526 Nov 20 j 07:02	8°♊55'20	2.39706 AU		531 Dec 05 j 11:12	0°♊	
	526 Dec 17 j 15:24	0°♊			532 Feb 12 j 09:49	0°♈	
				retrograde	532 Mar 10 j 06:02	3°♈52'33	
conjunction	526 Dec 25 j 23:19	6°♊30'14	0°-55'-51		532 Apr 04 j 04:28	30°♈	
minimum elong	526 Dec 25 j 20:56	6°♊25'35	0°55'51	opposition	532 Apr 14 j 19:27	26°♊27'48	1°06'01
	527 Jan 24 j 20:15	0°♈		greatest brilliancy	532 Apr 15 j 08:53	26°♊15'47	-1.9m
morning rise	527 Mar 04 j 05:23	0°♈09'53		min. Earth dist.	532 Apr 22 j 22:30	23°♊33'23	0.52512 AU
	527 Mar 04 j 00:19	0°♈		desc. node	532 May 07 j 10:45	19°♊16'42	
	527 Apr 12 j 00:44	0°♎		direct	532 May 23 j 23:32	17°♊24'03	
	527 May 22 j 17:19	0°♊			532 Jul 10 j 12:48	0°♈	
	527 Jul 04 j 21:07	0°♈			532 Aug 30 j 22:41	0°♊	
asc. node	527 Jul 15 j 20:08	7°♈17'20			532 Oct 12 j 04:51	0°♊	
	527 Aug 20 j 14:12	0°♊			532 Nov 20 j 23:46	0°♈	
	527 Oct 13 j 10:36	0°♈			532 Dec 30 j 11:36	0°♈	
retrograde	527 Dec 19 j 23:57	20°♈07'33			533 Feb 08 j 21:17	0°♎	
opposition	528 Jan 28 j 20:42	10°♈36'01	4°35'00	asc. node	533 Mar 06 j 16:35	18°♎34'37	
greatest brilliancy	528 Jan 29 j 01:21	10°♈31'24	-1.2m		533 Mar 22 j 21:44	0°♊	
min. Earth dist.	528 Jan 30 j 02:09	10°♈06'44	0.67555 AU	evening set	533 Apr 30 j 22:48	26°♊44'36	
direct	528 Mar 09 j 22:25	0°♈40'24			533 May 05 j 19:17	0°♈	
	528 Jun 04 j 08:32	0°♎					
	528 Jul 25 j 01:04	0°♊		conjunction	533 Jun 20 j 19:10	0°♊15'47	0°54'13
desc. node	528 Aug 02 j 11:56	5°♊27'34		minimum elong	533 Jun 20 j 17:48	0°♊13'35	0°54'12
	528 Sep 07 j 15:14	0°♈			533 Jun 20 j 09:25	0°♊	
	528 Oct 18 j 18:58	0°♊		max. Earth dist.	533 Jul 03 j 01:07	8°♊10'24	2.64889 AU
	528 Nov 26 j 20:41	0°♊		morning rise	533 Aug 06 j 20:20	0°♈25'36	
evening set	528 Dec 29 j 23:36	26°♊04'06			533 Aug 06 j 04:14	0°♈	
	529 Jan 03 j 22:58	0°♈			533 Sep 22 j 14:51	0°♎	
	529 Feb 11 j 02:14	0°♈			533 Nov 09 j 12:24	0°♊	
					533 Dec 28 j 09:38	0°♈	
conjunction	529 Mar 07 j 11:59	18°♈51'42	0°-49'-34		534 Feb 18 j 12:16	0°♊	
minimum elong	529 Mar 07 j 15:00	18°♈57'29	0°49'34	desc. node	534 Mar 25 j 09:16	17°♊07'38	
	529 Mar 22 j 04:02	0°♎		retrograde	534 May 14 j 21:34	29°♊44'37	
max. Earth dist.	529 Apr 26 j 16:00	26°♎13'17	2.44259 AU	opposition	534 Jun 14 j 21:17	24°♊23'53	-4°-44'-38
	529 May 01 j 21:49	0°♊		greatest brilliancy	534 Jun 16 j 03:36	24°♊02'11	-2.7m
morning rise	529 May 11 j 14:02	6°♊54'26		min. Earth dist.	534 Jun 20 j 16:52	22°♊44'17	0.39936 AU
asc. node	529 Jun 01 j 19:40	21°♊46'34		direct	534 Jul 17 j 17:07	18°♊17'54	
	529 Jun 13 j 19:40	0°♈			534 Aug 31 j 00:21	0°♊	
	529 Jul 29 j 05:11	0°♊			534 Oct 21 j 11:49	0°♈	
	529 Sep 15 j 15:54	0°♈			534 Dec 04 j 14:46	0°♈	
	529 Nov 08 j 19:18	0°♎			535 Jan 16 j 21:46	0°♎	
retrograde	530 Jan 24 j 19:03	24°♎10'07		asc. node	535 Jan 22 j 16:08	3°♎58'05	
opposition	530 Mar 04 j 06:19	15°♎25'31	3°49'15		535 Mar 01 j 23:22	0°♊	
greatest brilliancy	530 Mar 05 j 04:14	15°♎04'20	-1.4m		535 Apr 16 j 07:53	0°♈	
min. Earth dist.	530 Mar 09 j 08:05	13°♎27'58	0.63077 AU		535 Jun 01 j 20:00	0°♊	
direct	530 Apr 14 j 13:12	5°♎26'37		evening set	535 Jun 12 j 08:19	6°♊42'44	
desc. node	530 Jun 20 j 11:28	26°♎04'12			535 Jul 18 j 22:27	0°♈	
	530 Jun 27 j 22:13	0°♊		max. Earth dist.	535 Jul 26 j 12:38	4°♈49'48	2.67498 AU
	530 Aug 15 j 23:52	0°♈					
	530 Sep 27 j 11:53	0°♊		conjunction	535 Jul 29 j 02:04	6°♈27'33	1°09'26
	530 Nov 06 j 02:02	0°♊		minimum elong	535 Jul 29 j 01:58	6°♈27'23	1°09'26
	530 Dec 14 j 11:36	0°♈			535 Sep 03 j 22:18	0°♎	
	531 Jan 21 j 22:20	0°♈		morning rise	535 Sep 11 j 16:52	4°♎59'52	
	531 Mar 02 j 09:21	0°♎			535 Oct 20 j 06:10	0°♊	
evening set	531 Mar 09 j 06:00	5°♎05'58			535 Dec 04 j 16:58	0°♈	
	531 Apr 12 j 13:00	0°♊			536 Jan 18 j 08:38	0°♊	
asc. node	531 Apr 19 j 18:12	5°♊06'53		desc. node	536 Feb 10 j 08:49	15°♊36'05	
					536 Mar 02 j 13:41	0°♊	
conjunction	531 May 07 j 10:25	17°♊28'00	0°10'50		536 Apr 16 j 07:48	0°♈	
minimum elong	531 May 07 j 09:47	17°♊26'56	0°10'49		536 Jun 04 j 15:23	0°♈	
behind sun begin	531 May 06 j 16:29	16°♊57'00		retrograde	536 Jul 31 j 14:26	18°♈07'23	

min. Earth dist.	536 Aug 27 j 06:26	13° ✕ 35'40	0.39871 AU	max. Earth dist.	541 Oct 23 j 03:19	12° ℓ 31'28	2.44581 AU
greatest brilliancy	536 Sep 01 j 03:45	12° ✕ 07'48	-2.7m		541 Nov 15 j 18:32	0° ✕	
opposition	536 Sep 02 j 13:34	11° ✕ 42'17	-5°-25'-39				
direct	536 Oct 02 j 21:24	6° ✕ 15'06		conjunction	541 Dec 01 j 09:40	11° ✕ 48'36	0°-36'-38
asc. node	536 Dec 09 j 15:30	28° ✕ 02'19		minimum elong	541 Dec 01 j 07:39	11° ✕ 44'46	0°36'38
	536 Dec 13 j 09:47	0° Υ			541 Dec 25 j 01:22	0° ☾	
	537 Feb 03 j 20:00	0° ♄		greatest brilliancy	542 Jan 13 j 01:42	14° ☾ 49'38	1.2m
	537 Mar 24 j 23:53	0° ♂			542 Feb 01 j 09:35	0° ≈	
	537 May 12 j 12:14	0° ☾		morning rise	542 Feb 02 j 06:24	0° ≈ 40'56	
	537 Jun 29 j 13:50	0° ♂			542 Mar 11 j 15:58	0° ✕	
evening set	537 Jul 19 j 03:32	12° ♂ 21'29			542 Apr 19 j 17:52	0° Υ	
	537 Aug 15 j 17:43	0° ♄			542 May 30 j 12:36	0° ♄	
max. Earth dist.	537 Aug 18 j 07:29	1° ♄ 39'41	2.64697 AU		542 Jul 13 j 00:10	0° ♂	
				asc. node	542 Aug 01 j 12:51	12° ♂ 40'19	
conjunction	537 Sep 02 j 20:51	11° ♄ 45'58	0°57'47		542 Aug 29 j 22:56	0° ☾	
minimum elong	537 Sep 02 j 21:57	11° ♄ 47'45	0°57'48		542 Oct 30 j 06:06	0° ♂	
	537 Sep 30 j 11:42	0° ♂		retrograde	542 Dec 06 j 14:07	7° ♂ 23'24	
morning rise	537 Oct 18 j 05:35	11° ♂ 56'10			543 Jan 09 j 18:16	30° ♄ ☾	
	537 Nov 13 j 13:54	0° ♂		opposition	543 Jan 15 j 16:19	27° ☾ 39'30	4°30'07
	537 Dec 26 j 01:10	0° ✕		min. Earth dist.	543 Jan 15 j 09:07	27° ☾ 46'42	0.67520 AU
desc. node	537 Dec 28 j 08:04	1° ✕ 38'44		greatest brilliancy	543 Jan 15 j 13:14	27° ☾ 42'35	-1.2m
	538 Feb 05 j 04:05	0° ☾		direct	543 Feb 25 j 06:03	17° ☾ 53'34	
	538 Mar 17 j 10:09	0° ≈			543 Apr 17 j 03:46	0° ♂	
	538 Apr 26 j 15:56	0° ✕			543 Jun 15 j 14:54	0° ♄	
	538 Jun 07 j 11:32	0° Υ			543 Aug 03 j 07:29	0° ♂	
	538 Jul 25 j 03:26	0° ♄		desc. node	543 Aug 20 j 05:04	11° ♂ 12'59	
retrograde	538 Sep 23 j 21:31	19° ♄ 54'34			543 Sep 16 j 08:28	0° ♂	
min. Earth dist.	538 Oct 24 j 12:24	13° ♄ 27'43	0.52272 AU		543 Oct 27 j 08:40	0° ✕	
asc. node	538 Oct 27 j 14:11	12° ♄ 18'41		evening set	543 Dec 03 j 20:18	28° ✕ 46'24	
opposition	538 Nov 01 j 00:46	10° ♄ 37'29	0°13'08		543 Dec 05 j 10:01	0° ☾	
greatest brilliancy	538 Nov 11 j 11:39	6° ♄ 55'57	-2.0m		544 Jan 12 j 12:18	0° ≈	
direct	538 Dec 05 j 22:36	2° ♄ 57'02					
	539 Feb 25 j 09:54	0° ♂		conjunction	544 Feb 07 j 23:22	20° ≈ 52'38	-1°-3'-30
	539 Apr 20 j 22:19	0° ☾		minimum elong	544 Feb 08 j 00:48	20° ≈ 55'28	1°03'31
	539 Jun 10 j 07:36	0° ♂			544 Feb 19 j 14:46	0° ✕	
	539 Jul 28 j 07:52	0° ♄		max. Earth dist.	544 Mar 25 j 07:44	26° ✕ 44'51	2.39096 AU
evening set	539 Aug 26 j 04:46	18° ♄ 45'18			544 Mar 29 j 14:51	0° Υ	
	539 Sep 12 j 01:54	0° ♂		morning rise	544 Apr 17 j 06:07	13° Υ 55'59	
max. Earth dist.	539 Sep 14 j 08:10	1° ♂ 31'20	2.56700 AU		544 May 09 j 06:38	0° ♄	
				asc. node	544 Jun 18 j 10:38	28° ♄ 08'21	
conjunction	539 Oct 12 j 23:32	21° ♂ 09'11	0°20'07		544 Jun 21 j 04:18	0° ♂	
minimum elong	539 Oct 13 j 00:21	21° ♂ 10'36	0°20'06		544 Aug 05 j 20:32	0° ☾	
	539 Oct 25 j 14:03	0° ♂			544 Sep 24 j 11:45	0° ♂	
desc. node	539 Nov 15 j 06:20	14° ♂ 47'23			544 Nov 23 j 15:08	0° ♄	
morning rise	539 Dec 02 j 09:11	27° ♂ 17'09		retrograde	545 Jan 09 j 21:32	10° ♄ 48'06	
	539 Dec 06 j 01:30	0° ✕		opposition	545 Feb 18 j 01:18	1° ♄ 42'10	4°17'35
	540 Jan 14 j 23:08	0° ☾		greatest brilliancy	545 Feb 18 j 17:30	1° ♄ 26'18	-1.3m
	540 Feb 22 j 21:51	0° ≈		min. Earth dist.	545 Feb 21 j 15:16	0° ♄ 17'57	0.65626 AU
	540 Apr 01 j 16:47	0° ✕			545 Feb 22 j 09:41	30° ♄ ♂	
	540 May 11 j 07:28	0° Υ		direct	545 Mar 31 j 10:52	21° ♂ 40'08	
	540 Jun 22 j 01:23	0° ♄			545 May 10 j 16:10	0° ♄	
	540 Aug 07 j 10:31	0° ♂		desc. node	545 Jul 07 j 03:42	28° ♄ 31'49	
asc. node	540 Sep 13 j 13:33	19° ♂ 40'07			545 Jul 09 j 15:09	0° ♂	
	540 Oct 12 j 20:09	0° ☾			545 Aug 25 j 03:09	0° ♂	
retrograde	540 Nov 01 j 17:20	2° ☾ 26'43			545 Oct 05 j 21:34	0° ✕	
	540 Nov 20 j 09:47	30° ♄ ♂			545 Nov 14 j 04:41	0° ☾	
min. Earth dist.	540 Dec 07 j 11:37	24° ♂ 08'43	0.62846 AU		545 Dec 22 j 09:47	0° ≈	
opposition	540 Dec 11 j 15:03	22° ♂ 29'14	3°19'16		546 Jan 29 j 15:58	0° ✕	
greatest brilliancy	540 Dec 10 j 21:39	22° ♂ 46'40	-1.5m	evening set	546 Feb 11 j 14:51	10° ✕ 00'58	
direct	541 Jan 19 j 00:36	13° ♂ 27'11			546 Mar 09 j 21:46	0° Υ	
	541 Mar 21 j 07:02	0° ☾					
	541 May 18 j 13:08	0° ♂		conjunction	546 Apr 16 j 01:04	27° Υ 17'08	0°-12'-43
	541 Jul 07 j 21:22	0° ♄		minimum elong	546 Apr 16 j 01:56	27° Υ 18'42	0°12'43
	541 Aug 23 j 07:51	0° ♂		behind sun begin	546 Apr 15 j 10:35	26° Υ 51'08	
desc. node	541 Oct 02 j 05:27	27° ♂ 29'28		behind sun end	546 Apr 16 j 17:17	27° Υ 46'16	
	541 Oct 05 j 18:11	0° ♂			546 Apr 19 j 19:52	0° ♄	
evening set	541 Oct 07 j 18:02	1° ♂ 25'19		asc. node	546 May 06 j 09:56	11° ♄ 44'59	

max. Earth dist.	546 May 24 j 16:34	24°♄26'06	2.52348 AU	min. Earth dist.	551 Aug 01 j 14:04	12°♊31'01	0.37516 AU
	546 Jun 01 j 20:02	0°♈		opposition	551 Aug 03 j 15:54	11°♊57'44	-6°-51'-34
morning rise	546 Jun 12 j 11:03	7°♈11'10		greatest brilliancy	551 Aug 03 j 04:10	12°♊05'35	-2.9m
	546 Jul 17 j 00:28	0°♉		direct	551 Sep 02 j 04:17	7°♊02'35	
	546 Sep 02 j 09:44	0°♊			551 Nov 09 j 11:58	0°♋	
	546 Oct 22 j 14:38	0°♋		asc. node	551 Dec 27 j 06:46	28°♋19'14	
	546 Dec 18 j 17:43	0°♌			551 Dec 29 j 23:17	0°♌	
retrograde	547 Feb 19 j 23:45	17°♌29'13			552 Feb 15 j 06:06	0°♍	
opposition	547 Mar 28 j 21:38	9°♌28'00	2°27'53		552 Apr 02 j 09:15	0°♍	
greatest brilliancy	547 Mar 29 j 20:38	9°♌06'35	-1.7m		552 May 19 j 21:42	0°♎	
min. Earth dist.	547 Apr 05 j 01:04	6°♌48'25	0.57266 AU	evening set	552 Jul 04 j 16:04	28°♎50'35	
	547 May 03 j 19:49	30°♏			552 Jul 06 j 11:58	0°♏	
direct	547 May 08 j 06:29	29°♏51'58		max. Earth dist.	552 Aug 08 j 20:03	21°♏12'15	2.66426 AU
	547 May 12 j 18:31	0°♐					
desc. node	547 May 25 j 02:07	1°♐38'04		conjunction	552 Aug 19 j 10:52	28°♏01'06	1°05'26
	547 Jul 28 j 18:59	0°♑		minimum elong	552 Aug 19 j 11:35	28°♏02'16	1°05'26
	547 Sep 12 j 06:16	0°♑			552 Aug 22 j 12:44	0°♑	
	547 Oct 22 j 23:01	0°♒		morning rise	552 Oct 03 j 03:07	27°♑08'48	
	547 Nov 30 j 23:28	0°♓			552 Oct 07 j 10:29	0°♒	
	548 Jan 08 j 21:50	0°♓			552 Nov 20 j 22:41	0°♓	
	548 Feb 17 j 19:48	0°♈			553 Jan 03 j 01:29	0°♈	
asc. node	548 Mar 23 j 09:50	25°♈02'53		desc. node	553 Jan 13 j 23:38	7°♈44'20	
	548 Mar 30 j 09:41	0°♉			553 Feb 14 j 00:30	0°♉	
evening set	548 Apr 11 j 19:09	8°♉40'48			553 Mar 27 j 07:03	0°♊	
	548 May 12 j 22:32	0°♊			553 May 07 j 22:39	0°♋	
					553 Jun 21 j 17:44	0°♌	
conjunction	548 Jun 04 j 08:49	14°♌58'13	0°40'43	retrograde	553 Sep 05 j 06:29	29°♌08'45	
minimum elong	548 Jun 04 j 07:20	14°♌55'45	0°40'41	min. Earth dist.	553 Oct 03 j 17:27	23°♌34'18	0.47105 AU
max. Earth dist.	548 Jun 23 j 02:11	27°♌15'32	2.62356 AU	opposition	553 Oct 11 j 21:47	20°♌40'18	-1°-44'-33
	548 Jun 27 j 07:15	0°♍		greatest brilliancy	553 Oct 11 j 03:50	20°♌56'16	-2.3m
morning rise	548 Jul 23 j 08:31	16°♍47'49		asc. node	553 Nov 13 j 06:27	13°♌48'00	
	548 Aug 13 j 02:18	0°♎		direct	553 Nov 14 j 00:50	13°♌47'46	
	548 Sep 29 j 22:37	0°♏			554 Jan 11 j 04:30	0°♍	
	548 Nov 18 j 00:04	0°♐			554 Mar 09 j 06:30	0°♍	
	549 Jan 08 j 22:21	0°♑			554 Apr 29 j 11:18	0°♎	
	549 Mar 15 j 20:57	0°♑			554 Jun 17 j 16:56	0°♏	
desc. node	549 Apr 11 j 01:16	5°♑02'36			554 Aug 04 j 07:06	0°♏	
retrograde	549 Apr 15 j 21:19	5°♑11'12		evening set	554 Aug 11 j 01:25	4°♑21'30	
	549 May 15 j 16:21	30°♒		max. Earth dist.	554 Sep 03 j 03:27	19°♑26'26	2.60420 AU
opposition	549 May 18 j 20:25	29°♒00'00	-2°-8'-27		554 Sep 19 j 00:00	0°♒	
greatest brilliancy	549 May 19 j 18:43	28°♒42'09	-2.4m				
min. Earth dist.	549 May 26 j 22:53	26°♒25'29	0.44409 AU	conjunction	554 Sep 26 j 14:17	5°♒07'02	0°37'44
direct	549 Jun 23 j 16:00	21°♒30'44		minimum elong	554 Sep 26 j 15:29	5°♒09'03	0°37'44
	549 Jul 30 j 19:46	0°♓			554 Nov 01 j 16:30	0°♓	
	549 Sep 22 j 02:50	0°♓		morning rise	554 Nov 13 j 08:00	8°♓14'02	
	549 Nov 04 j 03:26	0°♔		desc. node	554 Dec 01 j 23:15	21°♓36'40	
	549 Dec 15 j 10:28	0°♔			554 Dec 13 j 11:34	0°♔	
	550 Jan 26 j 03:09	0°♕			555 Jan 22 j 18:19	0°♕	
asc. node	550 Feb 08 j 08:16	9°♕19'59			555 Mar 03 j 02:14	0°♖	
	550 Mar 10 j 03:24	0°♖			555 Apr 11 j 06:07	0°♗	
	550 Apr 23 j 18:37	0°♗			555 May 21 j 08:18	0°♘	
evening set	550 May 27 j 16:26	22°♗09'37			555 Jul 03 j 02:34	0°♘	
	550 Jun 08 j 19:52	0°♘			555 Aug 22 j 07:08	0°♙	
				asc. node	555 Oct 01 j 05:00	15°♙22'17	
conjunction	550 Jul 14 j 15:15	22°♘55'37	1°06'47	retrograde	555 Oct 19 j 05:22	17°♙27'26	
minimum elong	550 Jul 14 j 14:36	22°♘54'33	1°06'47	min. Earth dist.	555 Nov 22 j 02:33	9°♙48'15	0.59335 AU
max. Earth dist.	550 Jul 17 j 16:00	24°♘51'31	2.67116 AU	opposition	555 Nov 27 j 16:18	7°♙35'54	2°24'12
	550 Jul 25 j 17:39	0°♚		greatest brilliancy	555 Nov 26 j 22:41	7°♙53'22	-1.6m
morning rise	550 Aug 28 j 20:03	21°♚43'07			555 Dec 22 j 14:33	30°♚	
	550 Sep 10 j 19:36	0°♛		direct	556 Jan 03 j 20:44	29°♚00'04	
	550 Oct 27 j 14:20	0°♛			556 Jan 16 j 19:07	0°♛	
	550 Dec 12 j 23:50	0°♜			556 Apr 03 j 10:29	0°♜	
	551 Jan 28 j 07:52	0°♜			556 May 27 j 04:43	0°♚	
desc. node	551 Feb 27 j 00:26	18°♜59'26			556 Jul 15 j 08:50	0°♛	
	551 Mar 16 j 14:10	0°♝			556 Aug 30 j 11:04	0°♛	
	551 May 07 j 19:48	0°♞		evening set	556 Sep 19 j 15:59	13°♛44'31	
retrograde	551 Jul 04 j 02:24	17°♞10'09		max. Earth dist.	556 Oct 04 j 15:19	24°♛10'00	2.49686 AU

	556 Oct 12 j 21:24	0°♄			561 Jul 24 j 06:24	0°♄		
desc. node	556 Oct 18 j 21:55	4°♄17'44			561 Sep 10 j 04:33	0°♄		
					561 Nov 01 j 09:12	0°♄		
conjunction	556 Nov 09 j 20:35	20°♄13'16	0°-13'-46		562 Jan 11 j 23:40	0°♄		
minimum elong	556 Nov 09 j 19:52	20°♄11'56	0°13'46	retrograde	562 Feb 02 j 20:52	2°♄38'32		
behind sun begin	556 Nov 09 j 07:32	19°♄49'18			562 Feb 23 j 06:17	30°♄		
behind sun end	556 Nov 10 j 08:11	20°♄34'35		opposition	562 Mar 12 j 20:14	24°♄07'42	3°24'53	
	556 Nov 23 j 01:26	0°♄		greatest brilliancy	562 Mar 13 j 19:52	23°♄45'06	-1.5m	
	557 Jan 01 j 13:10	0°♄		min. Earth dist.	562 Mar 18 j 16:22	21°♄53'44	0.61268 AU	
morning rise	557 Jan 05 j 21:16	3°♄21'03		direct	562 Apr 22 j 21:38	14°♄13'52		
	557 Feb 09 j 01:56	0°♄		desc. node	562 Jun 10 j 18:30	26°♄29'47		
	557 Mar 19 j 11:35	0°♄			562 Jun 18 j 09:59	0°♄		
	557 Apr 27 j 16:04	0°♄			562 Aug 09 j 14:53	0°♄		
	557 Jun 07 j 15:16	0°♄			562 Sep 21 j 21:38	0°♄		
	557 Jul 21 j 16:51	0°♄			562 Oct 31 j 19:21	0°♄		
asc. node	557 Aug 18 j 03:42	17°♄05'19			562 Dec 09 j 09:03	0°♄		
	557 Sep 09 j 23:46	0°♄			563 Jan 16 j 22:37	0°♄		
retrograde	557 Nov 23 j 06:51	24°♄27'42			563 Feb 25 j 12:10	0°♄		
min. Earth dist.	557 Dec 31 j 14:39	15°♄18'43	0.66465 AU	evening set	563 Mar 22 j 11:26	18°♄19'37		
opposition	558 Jan 02 j 10:22	14°♄34'49	4°13'22		563 Apr 07 j 18:11	0°♄		
greatest brilliancy	558 Jan 02 j 00:15	14°♄44'58	-1.3m	asc. node	563 Apr 10 j 01:02	1°♄37'18		
direct	558 Feb 11 j 07:07	5°♄02'38						
	558 May 01 j 11:27	0°♄		conjunction	563 May 18 j 11:22	28°♄16'24	0°22'55	
	558 Jun 24 j 12:51	0°♄		minimum elong	563 May 18 j 10:14	28°♄14'29	0°22'55	
	558 Aug 11 j 01:34	0°♄			563 May 21 j 00:27	0°♄		
desc. node	558 Sep 05 j 20:34	17°♄25'55		max. Earth dist.	563 Jun 13 j 08:37	15°♄38'07	2.59046 AU	
	558 Sep 23 j 18:57	0°♄			563 Jul 05 j 05:51	0°♄		
	558 Nov 03 j 18:23	0°♄		morning rise	563 Jul 09 j 01:40	2°♄29'09		
evening set	558 Nov 09 j 09:15	4°♄14'18			563 Aug 21 j 03:34	0°♄		
	558 Dec 12 j 21:17	0°♄			563 Oct 08 j 14:36	0°♄		
max. Earth dist.	558 Dec 20 j 04:12	5°♄41'33	2.37665 AU		563 Nov 28 j 11:11	0°♄		
					564 Jan 25 j 20:18	0°♄		
conjunction	559 Jan 10 j 04:39	22°♄13'07	-1°-2'-43	retrograde	564 Mar 22 j 11:41	14°♄40'53		
minimum elong	559 Jan 10 j 03:06	22°♄10'05	1°02'43	opposition	564 Apr 26 j 04:24	7°♄39'56	0°04'42	
	559 Jan 20 j 01:17	0°♄		greatest brilliancy	563 Jul 04 j 07:01	29°♄22'52	-5.2m	
	559 Feb 27 j 04:24	0°♄		desc. node	564 Apr 27 j 16:44	7°♄08'18		
morning rise	559 Mar 21 j 02:54	17°♄00'13		min. Earth dist.	564 May 04 j 13:58	4°♄45'32	0.49647 AU	
	559 Apr 07 j 03:58	0°♄			564 May 22 j 18:09	30°♄		
	559 May 17 j 19:01	0°♄		direct	564 Jun 03 j 08:47	29°♄03'17		
	559 Jun 29 j 18:30	0°♄			564 Jun 15 j 06:13	0°♄		
asc. node	559 Jul 06 j 03:40	4°♄17'24			564 Aug 22 j 08:18	0°♄		
	559 Aug 14 j 22:39	0°♄			564 Oct 05 j 10:15	0°♄		
	559 Oct 05 j 15:01	0°♄			564 Nov 14 j 23:31	0°♄		
retrograde	559 Dec 27 j 20:17	27°♄54'27			564 Dec 24 j 22:24	0°♄		
opposition	560 Feb 05 j 11:56	18°♄31'01	4°32'09		565 Feb 03 j 16:14	0°♄		
greatest brilliancy	560 Feb 05 j 20:52	18°♄22'11	-1.2m	asc. node	565 Feb 25 j 00:40	15°♄18'22		
min. Earth dist.	560 Feb 07 j 13:22	17°♄42'03	0.67149 AU		565 Mar 17 j 23:01	0°♄		
direct	560 Mar 17 j 17:49	8°♄31'44			565 May 01 j 01:07	0°♄		
	560 May 27 j 12:19	0°♄		evening set	565 May 11 j 00:28	6°♄37'38		
	560 Jul 19 j 07:32	0°♄			565 Jun 15 j 18:02	0°♄		
desc. node	560 Jul 23 j 19:39	2°♄50'22						
	560 Sep 02 j 11:35	0°♄		conjunction	565 Jun 29 j 16:05	8°♄58'40	1°00'02	
	560 Oct 13 j 20:03	0°♄		minimum elong	565 Jun 29 j 14:56	8°♄56'48	1°00'01	
	560 Nov 21 j 23:29	0°♄		max. Earth dist.	565 Jul 08 j 13:33	14°♄41'13	2.65914 AU	
	560 Dec 30 j 02:27	0°♄			565 Aug 01 j 13:06	0°♄		
evening set	561 Jan 14 j 21:06	12°♄27'12		morning rise	565 Aug 14 j 21:55	8°♄30'01		
greatest brilliancy	561 Jan 15 j 06:56	12°♄46'34	1.2m		565 Sep 17 j 19:43	0°♄		
	561 Feb 06 j 06:08	0°♄			565 Nov 04 j 05:57	0°♄		
	561 Mar 17 j 08:35	0°♄			565 Dec 22 j 00:34	0°♄		
					566 Feb 09 j 05:43	0°♄		
conjunction	561 Mar 22 j 15:19	3°♄57'53	0°-37'-10	desc. node	566 Mar 15 j 16:52	19°♄31'56		
minimum elong	561 Mar 22 j 17:56	4°♄02'47	0°37'10		566 Apr 05 j 09:15	0°♄		
	561 Apr 27 j 03:00	0°♄		retrograde	566 Jun 01 j 19:40	10°♄10'15		
max. Earth dist.	561 May 08 j 09:29	8°♄02'19	2.47248 AU	opposition	566 Jul 02 j 04:17	11°♄08'11	-6°-2'-21	
morning rise	561 May 23 j 21:26	18°♄54'29		greatest brilliancy	566 Jul 03 j 01:33	10°♄53'42	-2.8m	
asc. node	561 May 23 j 02:30	18°♄21'35		min. Earth dist.	566 Jul 05 j 12:24	10°♄13'43	0.38239 AU	
	561 Jun 09 j 00:23	0°♄		direct	566 Aug 02 j 08:30	5°♄43'10		

	566 Oct 09 j 23:28	0°♊		conjunction	571 Oct 22 j 22:04	1°♌23'23	0°08'28
	566 Nov 26 j 18:05	0°♋		minimum elong	571 Oct 22 j 22:27	1°♌24'04	0°08'27
	567 Jan 10 j 12:55	0°♌		behind sun begin	571 Oct 22 j 04:03	0°♌51'27	
asc. node	567 Jan 12 j 22:56	1°♌37'32		behind sun end	571 Oct 23 j 16:51	1°♌56'43	
	567 Feb 24 j 10:34	0°♍		desc. node	571 Nov 05 j 13:41	11°♌09'26	
	567 Apr 11 j 06:59	0°♎			571 Dec 01 j 07:58	0°♏	
	567 May 28 j 02:13	0°♏		morning rise	571 Dec 14 j 07:00	9°♏40'10	
evening set	567 Jun 20 j 23:08	15°♏09'54			572 Jan 10 j 01:57	0°♐	
	567 Jul 14 j 08:08	0°♑			572 Feb 17 j 20:53	0°♑	
max. Earth dist.	567 Jul 31 j 18:39	11°♑05'30	2.67354 AU		572 Mar 27 j 11:53	0°♒	
					572 May 05 j 21:38	0°♓	
conjunction	567 Aug 06 j 05:31	14°♑34'02	1°09'06		572 Jun 16 j 06:09	0°♓	
minimum elong	567 Aug 06 j 05:44	14°♑34'23	1°09'06		572 Jul 31 j 10:32	0°♔	
	567 Aug 30 j 07:55	0°♕		asc. node	572 Sep 03 j 21:06	19°♔49'28	
morning rise	567 Sep 19 j 17:20	13°♕10'10			572 Sep 25 j 06:52	0°♕	
	567 Oct 15 j 11:59	0°♖		retrograde	572 Nov 09 j 17:22	10°♕57'50	
	567 Nov 29 j 13:57	0°♗		min. Earth dist.	572 Dec 16 j 10:21	2°♕20'37	0.64393 AU
	568 Jan 12 j 14:31	0°♘		opposition	572 Dec 19 j 18:11	1°♕00'29	3°43'29
desc. node	568 Jan 31 j 16:43	13°♘12'00		greatest brilliancy	572 Dec 19 j 02:36	1°♕16'08	-1.4m
	568 Feb 24 j 19:40	0°♙			572 Dec 22 j 06:44	30°♒♔	
	568 Apr 07 j 20:31	0°♊		direct	573 Jan 27 j 17:04	21°♔46'35	
	568 May 22 j 15:49	0°♋			573 Mar 09 j 11:00	0°♕	
	568 Jul 19 j 20:26	0°♌			573 May 12 j 07:20	0°♑	
retrograde	568 Aug 14 j 14:24	4°♌27'40			573 Jul 02 j 17:11	0°♒	
	568 Sep 09 j 10:02	30°♒♔			573 Aug 18 j 12:35	0°♕	
min. Earth dist.	568 Sep 10 j 11:02	29°♒40'35	0.42116 AU	desc. node	573 Sep 22 j 12:50	23°♕57'43	
greatest brilliancy	568 Sep 16 j 15:42	27°♒41'21	-2.6m		573 Oct 01 j 01:49	0°♌	
opposition	568 Sep 18 j 01:26	27°♒14'09	-4°-6'-7	evening set	573 Oct 18 j 20:17	12°♌48'02	
direct	568 Oct 19 j 05:23	21°♒17'29		max. Earth dist.	573 Nov 06 j 01:03	26°♌13'19	2.41812 AU
	568 Nov 28 j 01:28	0°♌			573 Nov 11 j 02:15	0°♘	
asc. node	568 Nov 29 j 21:19	0°♌42'50					
	569 Jan 27 j 03:32	0°♍		conjunction	573 Dec 14 j 20:06	25°♘44'45	0°-48'-22
	569 Mar 19 j 03:05	0°♎		minimum elong	573 Dec 14 j 17:39	25°♘40'01	0°48'22
	569 May 07 j 09:57	0°♏			573 Dec 20 j 07:44	0°♐	
	569 Jun 24 j 20:20	0°♑			574 Jan 27 j 14:14	0°♑	
evening set	569 Jul 27 j 10:38	20°♑34'41		morning rise	574 Feb 18 j 22:12	17°♑34'49	
	569 Aug 11 j 03:33	0°♒			574 Mar 06 j 18:50	0°♒	
max. Earth dist.	569 Aug 23 j 23:07	8°♒17'32	2.63397 AU		574 Apr 14 j 18:54	0°♓	
					574 May 25 j 10:59	0°♓	
conjunction	569 Sep 11 j 07:26	20°♒18'48	0°51'32		574 Jul 07 j 15:44	0°♔	
minimum elong	569 Sep 11 j 08:38	20°♒20'48	0°51'32	asc. node	574 Jul 22 j 19:07	9°♔59'23	
	569 Sep 25 j 21:17	0°♕			574 Aug 23 j 17:06	0°♕	
morning rise	569 Oct 27 j 07:13	21°♕19'01			574 Oct 18 j 12:26	0°♑	
	569 Nov 08 j 20:05	0°♌		retrograde	574 Dec 14 j 07:18	15°♑10'42	
desc. node	569 Dec 18 j 15:10	28°♌14'32		opposition	575 Jan 23 j 06:18	5°♑33'12	4°34'19
	569 Dec 21 j 01:30	0°♘		greatest brilliancy	575 Jan 23 j 07:27	5°♑32'04	-1.2m
	570 Jan 30 j 20:42	0°♙		min. Earth dist.	575 Jan 23 j 19:10	5°♑20'22	0.67663 AU
	570 Mar 11 j 17:53	0°♊			575 Feb 07 j 03:39	30°♒♕	
	570 Apr 20 j 12:00	0°♋		direct	575 Mar 05 j 02:37	25°♕41'30	
	570 May 31 j 10:57	0°♌			575 Apr 02 j 13:25	0°♑	
	570 Jul 15 j 09:00	0°♍			575 Jun 09 j 03:09	0°♒	
	570 Sep 22 j 19:29	0°♎			575 Jul 28 j 23:14	0°♕	
retrograde	570 Oct 03 j 13:10	0°♎47'25		desc. node	575 Aug 10 j 11:29	8°♕10'22	
	570 Oct 13 j 22:14	30°♒♕			575 Sep 11 j 09:06	0°♌	
asc. node	570 Oct 17 j 21:30	29°♒16'42			575 Oct 22 j 12:29	0°♘	
min. Earth dist.	570 Nov 04 j 08:41	23°♒53'11	0.54946 AU		575 Nov 30 j 14:45	0°♐	
opposition	570 Nov 11 j 05:59	21°♒13'34	1°08'15	evening set	575 Dec 18 j 20:44	14°♐19'08	
greatest brilliancy	570 Nov 10 j 18:46	21°♒24'25	-1.9m		576 Jan 07 j 17:18	0°♑	
direct	570 Dec 17 j 00:05	13°♒11'10			576 Feb 14 j 19:47	0°♒	
	571 Feb 15 j 20:10	0°♔					
	571 Apr 14 j 20:11	0°♕		conjunction	576 Feb 24 j 05:15	7°♒18'54	0°-57'-7
	571 Jun 05 j 04:49	0°♑		minimum elong	576 Feb 24 j 08:00	7°♒24'13	0°57'07
	571 Jul 23 j 14:07	0°♒			576 Mar 24 j 19:49	0°♓	
evening set	571 Sep 04 j 03:51	27°♒46'52		max. Earth dist.	576 Apr 15 j 06:47	16°♓00'56	2.41850 AU
	571 Sep 07 j 11:16	0°♕		morning rise	576 May 01 j 10:47	27°♓49'02	
max. Earth dist.	571 Sep 21 j 11:39	9°♕29'45	2.54357 AU		576 May 04 j 11:24	0°♍	
	571 Oct 20 j 23:00	0°♌		asc. node	576 Jun 08 j 18:27	24°♒50'29	

	576 Jun 16 j 07:21	0°♊			581 Sep 11 j 03:47	0°♎	
	576 Jul 31 j 17:42	0°♏			581 Oct 27 j 09:02	0°♎	
	576 Sep 18 j 12:48	0°♏			581 Dec 08 j 22:53	0°♏	
	576 Nov 13 j 09:29	0°♏			582 Jan 20 j 09:14	0°♏	
retrograde	577 Jan 18 j 07:45	18°♏50'50		asc. node	582 Jan 29 j 14:50	6°♏26'41	
opposition	577 Feb 26 j 02:27	9°♏56'09	4°02'41		582 Mar 04 j 21:22	0°♏	
greatest brilliancy	577 Feb 26 j 22:01	9°♏37'06	-1.4m		582 Apr 18 j 20:28	0°♊	
min. Earth dist.	577 Mar 02 j 11:58	8°♏13'27	0.64333 AU		582 Jun 04 j 02:51	0°♏	
	577 Apr 04 j 20:18	30°♏♏		evening set	582 Jun 05 j 18:23	1°♏03'25	
direct	577 Apr 08 j 10:47	29°♏♏54'58			582 Jul 21 j 02:48	0°♏	
	577 Apr 12 j 02:23	0°♏					
desc. node	577 Jun 27 j 10:27	27°♏09'23		conjunction	582 Jul 22 j 23:36	1°♏11'16	1°08'49
	577 Jul 02 j 12:30	0°♏		minimum elong	582 Jul 22 j 23:16	1°♏10'44	1°08'48
	577 Aug 19 j 09:39	0°♏		max. Earth dist.	582 Jul 22 j 22:52	1°♏10'05	2.67439 AU
	577 Sep 30 j 14:40	0°♏		morning rise	582 Sep 05 j 18:56	29°♏46'12	
	577 Nov 09 j 02:08	0°♎			582 Sep 06 j 03:33	0°♏	
	577 Dec 17 j 09:47	0°♎			582 Oct 22 j 16:21	0°♏	
	578 Jan 24 j 17:57	0°♏			582 Dec 07 j 12:39	0°♏	
evening set	578 Feb 26 j 10:27	25°♏00'59			583 Jan 21 j 20:24	0°♏	
	578 Mar 05 j 01:38	0°♏		desc. node	583 Feb 17 j 07:55	17°♏34'16	
	578 Apr 15 j 01:38	0°♏			583 Mar 08 j 03:41	0°♎	
asc. node	578 Apr 26 j 17:37	8°♏16'44			583 Apr 24 j 00:41	0°♎	
					583 Jun 21 j 19:02	0°♏	
conjunction	578 Apr 28 j 12:05	9°♏31'28	0°01'07	retrograde	583 Jul 20 j 17:52	5°♏19'04	
minimum elong	578 Apr 28 j 12:00	9°♏31'19	0°01'07	min. Earth dist.	583 Aug 16 j 19:46	0°♏51'05	0.38480 AU
behind sun begin	578 Apr 27 j 11:59	8°♏49'05			583 Aug 19 j 20:05	30°♏	
behind sun end	578 Apr 29 j 12:00	10°♏13'30		greatest brilliancy	583 Aug 20 j 09:03	29°♏50'46	-2.8m
	578 May 28 j 02:46	0°♊		opposition	583 Aug 21 j 12:10	29°♏31'29	-6°-15'-56
max. Earth dist.	578 Jun 01 j 09:37	2°♊54'28	2.54936 AU	direct	583 Sep 20 j 07:38	24°♏23'54	
morning rise	578 Jun 22 j 13:35	17°♊04'42			583 Oct 20 j 22:45	0°♏	
	578 Jul 12 j 06:16	0°♏		asc. node	583 Dec 17 j 14:26	27°♏54'48	
	578 Aug 28 j 09:25	0°♏			583 Dec 21 j 05:14	0°♏	
	578 Oct 16 j 18:55	0°♏			584 Feb 08 j 19:43	0°♏	
	578 Dec 09 j 17:43	0°♏			584 Mar 27 j 22:47	0°♊	
retrograde	579 Mar 02 j 14:34	27°♏01'49			584 May 14 j 23:26	0°♏	
opposition	579 Apr 07 j 19:11	19°♏19'36	1°44'05		584 Jul 01 j 19:44	0°♏	
greatest brilliancy	579 Apr 08 j 14:01	19°♏02'23	-1.8m	evening set	584 Jul 12 j 23:46	7°♏03'16	
min. Earth dist.	579 Apr 15 j 12:40	16°♏30'17	0.54722 AU	max. Earth dist.	584 Aug 14 j 06:50	27°♏38'49	2.65577 AU
desc. node	579 May 15 j 09:56	10°♏01'01			584 Aug 17 j 22:34	0°♏	
direct	579 May 17 j 13:31	9°♏59'07					
	579 Jul 19 j 09:42	0°♏		conjunction	584 Aug 27 j 16:17	6°♏17'36	1°01'27
	579 Sep 05 j 12:59	0°♏		minimum elong	584 Aug 27 j 17:14	6°♏19'08	1°01'27
	579 Oct 17 j 00:32	0°♎			584 Oct 02 j 19:01	0°♏	
	579 Nov 25 j 10:17	0°♎		morning rise	584 Oct 11 j 15:40	5°♏54'57	
	580 Jan 03 j 14:57	0°♏			584 Nov 16 j 02:15	0°♏	
	580 Feb 12 j 17:58	0°♏			584 Dec 28 j 20:53	0°♏	
asc. node	580 Mar 13 j 15:40	21°♏37'00		desc. node	585 Jan 04 j 07:17	4°♏35'55	
	580 Mar 25 j 12:20	0°♏			585 Feb 08 j 08:27	0°♎	
evening set	580 Apr 22 j 22:58	19°♏40'59			585 Mar 21 j 00:25	0°♎	
	580 May 08 j 04:35	0°♊			585 Apr 30 j 18:00	0°♏	
					585 Jun 12 j 11:02	0°♏	
conjunction	580 Jun 13 j 22:05	24°♊19'21	0°49'04		585 Aug 02 j 18:18	0°♏	
minimum elong	580 Jun 13 j 20:38	24°♊16'59	0°49'03	retrograde	585 Sep 16 j 04:48	11°♏46'53	
	580 Jun 22 j 15:19	0°♏		min. Earth dist.	585 Oct 15 j 20:02	5°♏42'53	0.49985 AU
max. Earth dist.	580 Jun 28 j 21:56	4°♏04'09	2.63870 AU	opposition	585 Oct 23 j 17:24	2°♏48'15	0°-33'-27
morning rise	580 Jul 31 j 17:42	25°♏07'58		greatest brilliancy	585 Oct 23 j 11:24	2°♏53'48	-2.1m
	580 Aug 08 j 09:22	0°♏			585 Oct 31 j 16:03	30°♏	
	580 Sep 24 j 23:26	0°♏		asc. node	585 Nov 03 j 13:18	29°♏05'32	
	580 Nov 12 j 07:43	0°♏		direct	585 Nov 26 j 20:42	25°♏27'52	
	581 Jan 01 j 06:53	0°♏			585 Dec 25 j 02:13	0°♏	
	581 Feb 25 j 20:16	0°♏			586 Mar 02 j 00:19	0°♊	
desc. node	581 Apr 01 j 08:36	13°♏53'15			586 Apr 23 j 21:40	0°♏	
retrograde	581 May 01 j 15:15	18°♏53'25			586 Jun 12 j 18:28	0°♏	
opposition	581 Jun 02 j 11:18	13°♏11'12	-3°-36'-19		586 Jul 30 j 14:50	0°♏	
greatest brilliancy	581 Jun 03 j 17:36	12°♏48'24	-2.6m	evening set	586 Aug 19 j 15:33	12°♏57'14	
min. Earth dist.	581 Jun 09 j 15:31	11°♏02'09	0.41776 AU	max. Earth dist.	586 Sep 09 j 13:07	26°♏45'15	2.58457 AU
direct	581 Jul 06 j 17:12	6°♏27'17			586 Sep 14 j 09:29	0°♏	

conjunction	586 Oct 05 j 19:02	14°♂31'58	0°27'58		591 Sep 28 j 19:05	0°♂	
minimum elong	586 Oct 05 j 20:04	14°♂33'43	0°27'58		591 Dec 02 j 20:55	0°♍	
	586 Oct 28 j 00:34	0°♍		retrograde	592 Jan 04 j 20:24	5°♍43'07	
desc. node	586 Nov 22 j 05:37	18°♍00'03			592 Feb 03 j 22:58	30°♍♂	
morning rise	586 Nov 23 j 20:41	19°♍10'47		opposition	592 Feb 13 j 05:29	26°♂28'53	4°24'59
	586 Dec 08 j 16:23	0°♂		greatest brilliancy	592 Feb 13 j 18:30	26°♂16'03	-1.3m
	587 Jan 17 j 18:33	0°♂		min. Earth dist.	592 Feb 16 j 02:47	25°♂20'35	0.66439 AU
	587 Feb 25 j 21:30	0°♌		direct	592 Mar 25 j 13:27	16°♂27'33	
	587 Apr 05 j 19:53	0°♋			592 May 17 j 23:57	0°♍	
	587 May 15 j 13:59	0°♍			592 Jul 13 j 06:01	0°♎	
	587 Jun 26 j 14:58	0°♊		desc. node	592 Jul 14 j 03:16	0°♎32'26	
	587 Aug 13 j 01:13	0°♈			592 Aug 28 j 04:38	0°♍	
asc. node	587 Sep 21 j 12:24	19°♈06'48			592 Oct 08 j 19:49	0°♂	
retrograde	587 Oct 27 j 15:33	26°♈37'56			592 Nov 17 j 01:46	0°♂	
min. Earth dist.	587 Dec 01 j 14:04	18°♈36'38	0.61382 AU		592 Dec 25 j 05:53	0°♌	
opposition	587 Dec 06 j 09:08	16°♈41'53	2°58'36	evening set	593 Jan 30 j 16:17	28°♌37'59	
greatest brilliancy	587 Dec 05 j 14:50	17°♈00'08	-1.5m		593 Feb 01 j 10:23	0°♋	
direct	588 Jan 13 j 05:53	7°♈50'56			593 Mar 12 j 13:31	0°♍	
	588 Mar 26 j 11:34	0°♌					
	588 May 21 j 13:25	0°♈		conjunction	593 Apr 05 j 20:15	18°♍01'39	0°-23'-18
	588 Jul 10 j 09:53	0°♍		minimum elong	593 Apr 05 j 21:55	18°♍04'42	0°23'18
	588 Aug 25 j 18:01	0°♎			593 Apr 22 j 08:36	0°♊	
evening set	588 Sep 29 j 17:49	24°♎00'06		asc. node	593 May 13 j 08:48	14°♊53'22	
	588 Oct 08 j 05:31	0°♍		max. Earth dist.	593 May 18 j 09:27	18°♊23'44	2.50122 AU
desc. node	588 Oct 09 j 04:25	0°♍40'43		morning rise	593 Jun 04 j 08:12	0°♈03'50	
max. Earth dist.	588 Oct 14 j 12:42	4°♍29'42	2.46882 AU		593 Jun 04 j 05:57	0°♈	
	588 Nov 18 j 08:34	0°♂			593 Jul 19 j 09:27	0°♌	
					593 Sep 04 j 22:10	0°♈	
conjunction	588 Nov 21 j 17:24	2°♂31'18	0°-26'-59		593 Oct 25 j 18:44	0°♍	
minimum elong	588 Nov 21 j 15:55	2°♂28'32	0°27'00		593 Dec 25 j 06:28	0°♎	
	588 Dec 27 j 18:08	0°♂		retrograde	594 Feb 12 j 09:55	11°♎24'55	
morning rise	589 Jan 20 j 21:42	18°♂48'00		opposition	594 Mar 21 j 19:34	3°♎09'35	2°54'16
	589 Feb 04 j 04:37	0°♌		greatest brilliancy	594 Mar 22 j 19:23	2°♎47'04	-1.6m
greatest brilliancy	589 Mar 13 j 12:38	29°♌14'06	1.2m	min. Earth dist.	594 Mar 28 j 09:07	0°♎40'52	0.59170 AU
	589 Mar 14 j 12:14	0°♋			594 Mar 30 j 05:26	30°♋♍	
	589 Apr 22 j 14:19	0°♍		direct	594 May 01 j 12:31	23°♍24'05	
	589 Jun 02 j 09:28	0°♊		desc. node	594 Jun 01 j 01:20	28°♍45'19	
	589 Jul 16 j 00:09	0°♈			594 Jun 04 j 17:33	0°♎	
asc. node	589 Aug 08 j 11:45	15°♈02'02			594 Aug 02 j 13:43	0°♍	
	589 Sep 02 j 15:07	0°♌			594 Sep 16 j 00:07	0°♂	
	589 Nov 10 j 20:13	0°♈			594 Oct 26 j 08:13	0°♂	
retrograde	589 Nov 30 j 22:47	2°♈22'12			594 Dec 04 j 03:32	0°♌	
	589 Dec 19 j 17:35	30°♋♌			595 Jan 11 j 21:16	0°♋	
min. Earth dist.	590 Jan 09 j 01:57	22°♌57'35	0.67175 AU		595 Feb 20 j 14:12	0°♍	
opposition	590 Jan 10 j 01:44	22°♌33'44	4°24'37	asc. node	595 Mar 31 j 08:47	28°♍09'24	
greatest brilliancy	590 Jan 09 j 19:20	22°♌40'08	-1.2m		595 Apr 02 j 23:09	0°♊	
direct	590 Feb 19 j 08:06	12°♌53'34		evening set	595 Apr 03 j 20:55	0°♊38'30	
	590 Apr 22 j 23:13	0°♈			595 May 16 j 07:34	0°♈	
	590 Jun 18 j 19:10	0°♍					
	590 Aug 06 j 00:46	0°♎		conjunction	595 May 28 j 21:31	8°♈27'40	0°33'43
desc. node	590 Aug 27 j 04:26	14°♎08'30		minimum elong	595 May 28 j 20:07	8°♈25'18	0°33'42
	590 Sep 18 j 23:41	0°♍		max. Earth dist.	595 Jun 19 j 16:36	22°♈53'45	2.60967 AU
	590 Oct 30 j 00:37	0°♂			595 Jun 30 j 13:31	0°♌	
evening set	590 Nov 22 j 19:54	18°♂07'51		morning rise	595 Jul 17 j 22:48	11°♌15'01	
	590 Dec 08 j 03:06	0°♂			595 Aug 16 j 08:32	0°♈	
	591 Jan 15 j 06:11	0°♌			595 Oct 03 j 10:02	0°♍	
					595 Nov 22 j 03:03	0°♎	
conjunction	591 Jan 26 j 06:35	8°♌42'17	-1°-5'-6		596 Jan 15 j 01:25	0°♍	
minimum elong	591 Jan 26 j 06:40	8°♌42'25	1°05'06	retrograde	596 Apr 04 j 16:56	26°♍18'03	
	591 Feb 22 j 08:31	0°♋		desc. node	596 Apr 18 j 00:30	25°♍11'35	
max. Earth dist.	591 Feb 22 j 20:28	0°♋23'22	2.37438 AU	opposition	596 May 08 j 12:04	19°♍43'40	-1°-7'-2
	591 Apr 02 j 07:23	0°♍		greatest brilliancy	596 May 09 j 01:06	19°♍32'48	-2.3m
morning rise	591 Apr 06 j 10:37	3°♍07'18		min. Earth dist.	596 May 16 j 22:34	16°♍55'58	0.46730 AU
	591 May 12 j 21:34	0°♊		direct	596 Jun 14 j 11:28	11°♍41'22	
	591 Jun 24 j 18:16	0°♈			596 Aug 11 j 05:22	0°♂	
asc. node	591 Jun 26 j 09:40	1°♈06'47			596 Sep 27 j 19:40	0°♂	
	591 Aug 09 j 13:08	0°♌			596 Nov 08 j 12:17	0°♌	

	596 Dec 19 j 02:29	0° X	
	597 Jan 29 j 06:52	0° Y	
asc. node	597 Feb 15 j 07:27	12° Y 07'28	
	597 Mar 12 j 21:36	0° X	
	597 Apr 26 j 05:28	0° II	
evening set	597 May 20 j 16:17	16° II 06'06	
	597 Jun 11 j 01:58	0° S	
conjunction	597 Jul 08 j 07:48	17° S 30'04	1°04'27
minimum elong	597 Jul 08 j 06:55	17° S 28'40	1°04'26
max. Earth dist.	597 Jul 13 j 22:47	21° S 05'43	2.66683 AU
	597 Jul 27 j 21:49	0° Q	
morning rise	597 Aug 22 j 22:11	16° Q 33'13	
	597 Sep 13 j 01:34	0° P	
	597 Oct 30 j 02:44	0° A	
	597 Dec 16 j 01:22	0° M	
	598 Feb 01 j 10:54	0° J	
desc. node	598 Mar 06 j 00:02	19° J 58'49	
	598 Mar 23 j 01:03	0° S	
	598 May 26 j 06:22	0° \approx	
retrograde	598 Jun 20 j 02:47	3° \approx 43'24	
	598 Jul 15 j 11:14	30° R S	
opposition	598 Jul 20 j 07:07	28° S 44'20	-6°-47'-43
greatest brilliancy	598 Jul 20 j 11:14	28° S 41'37	-2.9m
min. Earth dist.	598 Jul 20 j 16:35	28° S 38'05	0.37440 AU
direct	598 Aug 19 j 04:19	23° S 44'33	
	598 Sep 20 j 05:58	0° \approx	
	598 Nov 17 j 09:06	0° X	
asc. node	599 Jan 03 j 05:52	29° X 45'44	
	599 Jan 03 j 14:38	0° Y	
	599 Feb 18 j 15:17	0° X	
	599 Apr 06 j 02:42	0° II	
	599 May 23 j 06:32	0° S	
evening set	599 Jun 29 j 10:22	23° S 30'00	
	599 Jul 09 j 16:43	0° Q	
max. Earth dist.	599 Aug 06 j 00:30	17° Q 22'29	2.66940 AU
conjunction	599 Aug 14 j 09:08	22° Q 43'10	1°07'26
minimum elong	599 Aug 14 j 09:39	22° Q 44'00	1°07'25
	599 Aug 25 j 17:16	0° P	
morning rise	599 Sep 27 j 21:51	21° P 32'55	
	599 Oct 10 j 18:14	0° A	
	599 Nov 24 j 12:46	0° M	
	600 Jan 07 j 01:12	0° J	
desc. node	600 Jan 21 j 22:54	10° J 27'24	
	600 Feb 18 j 12:34	0° S	
	600 Mar 31 j 11:05	0° \approx	
	600 May 13 j 02:55	0° X	
	600 Jun 29 j 15:57	0° Y	
retrograde	600 Aug 27 j 07:47	19° Y 21'24	
min. Earth dist.	600 Sep 23 j 21:52	14° Y 09'43	0.44793 AU
greatest brilliancy	600 Sep 30 j 22:58	11° Y 45'55	-2.4m
opposition	600 Oct 02 j 01:04	11° Y 23'35	-2°-43'-43
direct	600 Nov 03 j 07:45	4° Y 55'24	
asc. node	600 Nov 20 j 05:34	6° Y 41'44	

conjunction	601 Sep 19 j 22:25	29° \mathbb{M} 05'27	0°44'00	morning rise	606 Mar 07 j 23:17	4° \mathbb{X} 41'20	
minimum elong	601 Sep 19 j 23:39	29° \mathbb{M} 07'31	0°44'00		606 Apr 09 j 21:49	0° \mathbb{Y}	
	601 Sep 21 j 07:02	0° $\underline{\mathbb{A}}$			606 May 20 j 11:47	0° \mathbb{B}	
	601 Nov 04 j 03:08	0° \mathbb{M}			606 Jul 02 j 11:29	0° \mathbb{H}	
morning rise	601 Nov 05 j 19:01	1° \mathbb{M} 09'48		asc. node	606 Jul 13 j 02:24	7° \mathbb{H} 06'10	
desc. node	601 Dec 08 j 22:31	24° \mathbb{M} 46'11			606 Aug 17 j 21:03	0° \mathbb{S}	
	601 Dec 16 j 03:29	0° \mathbb{X}			606 Oct 09 j 17:50	0° \mathbb{Q}	
	602 Jan 25 j 15:58	0° \mathbb{Z}		retrograde	606 Dec 22 j 01:18	22° \mathbb{Q} 56'06	
	602 Mar 06 j 05:28	0° \approx		opposition	607 Jan 30 j 20:26	13° \mathbb{Q} 25'52	4°34'23
	602 Apr 14 j 14:46	0° \mathbb{X}		greatest brilliancy	607 Jan 31 j 01:52	13° \mathbb{Q} 20'27	-1.2m
	602 May 24 j 23:30	0° \mathbb{Y}		min. Earth dist.	607 Feb 01 j 05:12	12° \mathbb{Q} 53'16	0.67510 AU
	602 Jul 07 j 09:04	0° \mathbb{B}		direct	607 Mar 12 j 22:24	3° \mathbb{Q} 29'30	
	602 Aug 29 j 19:04	0° \mathbb{H}			607 Jun 01 j 23:47	0° \mathbb{M}	
asc. node	602 Oct 08 j 04:28	10° \mathbb{H} 50'02			607 Jul 23 j 10:44	0° $\underline{\mathbb{A}}$	
retrograde	602 Oct 12 j 16:09	10° \mathbb{H} 58'26		desc. node	607 Jul 31 j 18:55	5° $\underline{\mathbb{A}}$ 20'28	
min. Earth dist.	602 Nov 14 j 15:49	3° \mathbb{H} 38'23	0.57474 AU		607 Sep 06 j 07:56	0° \mathbb{M}	
opposition	602 Nov 20 j 20:04	1° \mathbb{H} 12'50	1°55'07		607 Oct 17 j 15:18	0° \mathbb{X}	
greatest brilliancy	602 Nov 20 j 03:57	1° \mathbb{H} 28'41	-1.7m		607 Nov 25 j 18:48	0° \mathbb{Z}	
	602 Nov 23 j 23:04	30° \mathbb{R} \mathbb{B}			608 Jan 02 j 21:37	0° \approx	
direct	602 Dec 27 j 09:31	22° \mathbb{B} 51'00		evening set	608 Jan 03 j 12:19	0° \approx 29'03	
	603 Feb 02 j 11:48	0° \mathbb{H}			608 Feb 10 j 00:25	0° \mathbb{X}	
	603 Apr 08 j 06:33	0° \mathbb{S}					
	603 May 30 j 22:10	0° \mathbb{Q}		conjunction	608 Mar 11 j 00:12	23° \mathbb{X} 09'03	0°-46'-45
	603 Jul 18 j 18:47	0° \mathbb{M}		minimum elong	608 Mar 11 j 03:14	23° \mathbb{X} 14'49	0°46'44
	603 Sep 02 j 20:02	0° $\underline{\mathbb{A}}$			608 Mar 20 j 00:55	0° \mathbb{Y}	
evening set	603 Sep 13 j 09:21	7° $\underline{\mathbb{A}}$ 07'36			608 Apr 29 j 16:44	0° \mathbb{B}	
max. Earth dist.	603 Sep 29 j 06:54	18° $\underline{\mathbb{A}}$ 02'33	2.51851 AU	max. Earth dist.	608 Apr 29 j 15:05	29° \mathbb{Y} 57'01	2.44829 AU
	603 Oct 16 j 08:09	0° \mathbb{M}		morning rise	608 May 14 j 13:41	10° \mathbb{B} 36'30	
desc. node	603 Oct 26 j 21:21	7° \mathbb{M} 31'29		asc. node	608 May 30 j 01:45	21° \mathbb{Q} 27'28	
					608 Jun 11 j 11:58	0° \mathbb{H}	
conjunction	603 Nov 02 j 08:59	12° \mathbb{M} 11'51	0°-4'-5		608 Jul 26 j 17:50	0° \mathbb{S}	
minimum elong	603 Nov 02 j 08:45	12° \mathbb{M} 11'26	0°04'05		608 Sep 12 j 21:59	0° \mathbb{Q}	
behind sun begin	603 Nov 01 j 11:19	11° \mathbb{M} 32'42			608 Nov 05 j 05:49	0° \mathbb{M}	
behind sun end	603 Nov 03 j 06:11	12° \mathbb{M} 50'13		retrograde	609 Jan 27 j 01:37	27° \mathbb{M} 05'45	
	603 Nov 26 j 15:26	0° \mathbb{X}		opposition	609 Mar 06 j 09:55	18° \mathbb{M} 23'33	3°42'28
morning rise	603 Dec 27 j 03:31	23° \mathbb{X} 00'19		greatest brilliancy	609 Mar 07 j 07:59	18° \mathbb{M} 02'14	-1.4m
	604 Jan 05 j 06:30	0° \mathbb{Z}		min. Earth dist.	609 Mar 11 j 14:17	16° \mathbb{M} 23'30	0.62766 AU
	604 Feb 12 j 22:01	0° \approx		direct	609 Apr 16 j 14:51	8° \mathbb{M} 25'25	
	604 Mar 22 j 09:37	0° \mathbb{X}		desc. node	609 Jun 17 j 17:42	26° \mathbb{M} 39'21	
	604 Apr 30 j 15:13	0° \mathbb{Y}			609 Jun 24 j 07:26	0° $\underline{\mathbb{A}}$	
	604 Jun 10 j 16:19	0° \mathbb{B}			609 Aug 13 j 09:03	0° \mathbb{M}	
	604 Jul 25 j 01:09	0° \mathbb{H}			609 Sep 25 j 04:50	0° \mathbb{X}	
asc. node	604 Aug 25 j 02:45	18° \mathbb{H} 51'53			609 Nov 03 j 22:20	0° \mathbb{Z}	
	604 Sep 14 j 19:56	0° \mathbb{S}			609 Dec 12 j 09:04	0° \approx	
retrograde	604 Nov 17 j 13:40	19° \mathbb{S} 14'42			610 Jan 19 j 19:34	0° \mathbb{X}	
min. Earth dist.	604 Dec 25 j 04:17	10° \mathbb{S} 19'34	0.65669 AU		610 Feb 28 j 05:21	0° \mathbb{Y}	
opposition	604 Dec 27 j 16:33	9° \mathbb{S} 19'00	4°02'42	evening set	610 Mar 12 j 08:52	9° \mathbb{Y} 00'59	
greatest brilliancy	604 Dec 27 j 03:39	9° \mathbb{S} 31'59	-1.3m		610 Apr 10 j 07:15	0° \mathbb{B}	
	605 Feb 01 j 08:45	30° \mathbb{R} \mathbb{H}		asc. node	610 Apr 17 j 00:16	4° \mathbb{B} 45'53	
direct	605 Feb 05 j 04:05	29° \mathbb{H} 54'31					
	605 Feb 09 j 01:09	0° \mathbb{S}		conjunction	610 May 10 j 03:17	20° \mathbb{B} 54'57	0°14'07
	605 May 05 j 11:58	0° \mathbb{Q}		minimum elong	610 May 10 j 02:30	20° \mathbb{B} 53'36	0°14'06
	605 Jun 27 j 09:01	0° \mathbb{M}		behind sun begin	610 May 09 j 15:53	20° \mathbb{B} 35'18	
	605 Aug 13 j 15:31	0° $\underline{\mathbb{A}}$		behind sun end	610 May 10 j 13:07	21° \mathbb{B} 11'52	
desc. node	605 Sep 12 j 20:06	20° $\underline{\mathbb{A}}$ 29'59			610 May 23 j 09:53	0° \mathbb{H}	
	605 Sep 26 j 08:23	0° \mathbb{M}		max. Earth dist.	610 Jun 08 j 13:36	10° \mathbb{H} 53'19	2.57298 AU
evening set	605 Oct 30 j 16:12	24° \mathbb{M} 58'44		morning rise	610 Jul 02 j 04:00	26° \mathbb{H} 29'32	
	605 Nov 06 j 09:28	0° \mathbb{X}			610 Jul 07 j 13:01	0° \mathbb{S}	
max. Earth dist.	605 Nov 24 j 17:01	13° \mathbb{X} 52'55	2.39267 AU		610 Aug 23 j 11:43	0° \mathbb{Q}	
	605 Dec 15 j 14:13	0° \mathbb{Z}			610 Oct 11 j 06:25	0° \mathbb{M}	
					610 Dec 02 j 03:48	0° $\underline{\mathbb{A}}$	
conjunction	605 Dec 29 j 06:37	10° \mathbb{Z} 41'21	0°-57'-49		611 Feb 04 j 07:28	0° \mathbb{M}	
minimum elong	605 Dec 29 j 04:21	10° \mathbb{Z} 36'55	0°57'49	retrograde	611 Mar 14 j 01:20	7° \mathbb{M} 14'01	
	606 Jan 22 j 19:29	0° \approx		opposition	611 Apr 18 j 11:26	29° $\underline{\mathbb{A}}$ 53'25	0°50'45
	606 Mar 01 j 22:58	0° \mathbb{X}			611 Apr 18 j 04:02	30° \mathbb{R} $\underline{\mathbb{A}}$	

greatest brilliancy	611 Apr 18 j 22:01	29°♄43'59	-2.0m	evening set	616 Jul 21 j 06:22	15°♂15'01	
min. Earth dist.	611 Apr 26 j 15:40	26°♄59'05	0.51976 AU		616 Aug 13 j 08:12	0°♊	
desc. node	611 May 05 j 15:58	24°♄07'31		max. Earth dist.	616 Aug 19 j 19:36	4°♊10'43	2.64479 AU
direct	611 May 27 j 10:30	20°♄54'44					
	611 Jul 05 j 23:36	0°♌		conjunction	616 Sep 04 j 23:41	14°♊41'44	0°56'10
	611 Aug 28 j 22:35	0°♍		minimum elong	616 Sep 05 j 00:48	14°♊43'34	0°56'09
	611 Oct 10 j 16:39	0°♎			616 Sep 28 j 03:50	0°♏	
	611 Nov 19 j 16:01	0°♐		morning rise	616 Oct 20 j 10:26	14°♏59'39	
	611 Dec 29 j 05:26	0°♑			616 Nov 11 j 07:13	0°♒	
	612 Feb 07 j 15:08	0°♓			616 Dec 23 j 19:04	0°♑	
asc. node	612 Mar 03 j 23:35	18°♓16'13		desc. node	616 Dec 25 j 14:23	1°♑17'51	
	612 Mar 20 j 14:40	0°♈			617 Feb 02 j 21:48	0°♎	
evening set	612 May 03 j 10:30	29°♈59'14			617 Mar 15 j 02:42	0°♐	
	612 May 03 j 10:58	0°♉			617 Apr 24 j 05:29	0°♑	
	612 Jun 17 j 23:55	0°♊			617 Jun 04 j 17:31	0°♓	
					617 Jul 21 j 06:45	0°♈	
conjunction	612 Jun 23 j 01:03	3°♊16'10	0°55'56	retrograde	617 Sep 26 j 08:25	23°♈23'11	
minimum elong	612 Jun 22 j 23:45	3°♊14'03	0°55'56	asc. node	617 Oct 24 j 20:13	17°♈42'20	
max. Earth dist.	612 Jul 04 j 13:18	10°♊41'44	2.65101 AU	min. Earth dist.	617 Oct 27 j 04:48	16°♈50'35	0.52772 AU
	612 Aug 03 j 17:44	0°♈		opposition	617 Nov 03 j 13:56	14°♈02'15	0°28'36
morning rise	612 Aug 08 j 21:59	3°♈17'32		greatest brilliancy	617 Nov 03 j 08:36	14°♈07'20	-2.0m
	612 Sep 20 j 03:06	0°♉		direct	617 Dec 08 j 14:43	6°♈17'35	
	612 Nov 06 j 21:49	0°♊			618 Feb 21 j 14:27	0°♉	
	612 Dec 25 j 11:51	0°♋			618 Apr 18 j 00:28	0°♊	
	613 Feb 14 j 16:57	0°♌			618 Jun 07 j 17:01	0°♈	
desc. node	613 Mar 22 j 15:53	18°♌28'37			618 Jul 25 j 21:30	0°♉	
	613 Apr 21 j 18:07	0°♍		evening set	618 Aug 28 j 09:42	21°♉45'36	
retrograde	613 May 18 j 19:28	4°♍08'14			618 Sep 09 j 18:36	0°♊	
	613 Jun 14 j 14:18	30°♌♌		max. Earth dist.	618 Sep 16 j 06:36	4°♊22'33	2.56280 AU
opposition	613 Jun 18 j 16:00	28°♌51'57	-5°-4'-28				
greatest brilliancy	613 Jun 19 j 21:35	28°♌30'56	-2.7m	conjunction	618 Oct 15 j 08:19	24°♊21'41	0°17'07
min. Earth dist.	613 Jun 24 j 00:27	27°♌20'59	0.39540 AU	minimum elong	618 Oct 15 j 09:01	24°♊22'55	0°17'07
direct	613 Jul 21 j 04:14	22°♌54'37			618 Oct 23 j 08:57	0°♋	
	613 Aug 23 j 18:02	0°♎		desc. node	618 Nov 12 j 12:53	14°♋23'38	
	613 Oct 17 j 23:55	0°♏			618 Dec 03 j 21:49	0°♑	
	613 Dec 01 j 18:41	0°♐		morning rise	618 Dec 05 j 01:59	0°♑52'00	
	614 Jan 14 j 07:38	0°♓			619 Jan 12 j 20:03	0°♎	
asc. node	614 Jan 19 j 22:05	3°♓50'37			619 Feb 20 j 18:37	0°♐	
	614 Feb 27 j 11:38	0°♈			619 Mar 31 j 12:30	0°♑	
	614 Apr 13 j 21:00	0°♉			619 May 10 j 00:46	0°♓	
	614 May 30 j 09:27	0°♊			619 Jun 20 j 13:36	0°♈	
evening set	614 Jun 14 j 12:59	9°♊39'51			619 Aug 05 j 09:21	0°♉	
	614 Jul 16 j 12:17	0°♈		asc. node	619 Sep 11 j 20:00	20°♉27'40	
max. Earth dist.	614 Jul 28 j 04:24	7°♈25'27	2.67500 AU		619 Oct 05 j 08:21	0°♊	
				retrograde	619 Nov 04 j 19:15	5°♊25'19	
conjunction	614 Jul 31 j 04:11	9°♈19'41	1°09'27		619 Dec 03 j 01:09	30°♌♌	
minimum elong	614 Jul 31 j 04:10	9°♈19'40	1°09'26	min. Earth dist.	619 Dec 10 j 17:27	27°♌03'54	0.63158 AU
	614 Sep 01 j 12:38	0°♉		opposition	619 Dec 14 j 17:37	25°♌27'34	3°26'53
morning rise	614 Sep 13 j 17:48	7°♉51'25		greatest brilliancy	619 Dec 14 j 00:13	25°♌45'01	-1.4m
	614 Oct 17 j 20:43	0°♊		direct	620 Jan 22 j 05:15	16°♌23'26	
	614 Dec 02 j 06:49	0°♋			620 Mar 16 j 18:05	0°♎	
	615 Jan 15 j 20:14	0°♌			620 May 15 j 13:40	0°♈	
desc. node	615 Feb 07 j 15:55	15°♌31'59			620 Jul 05 j 07:48	0°♉	
	615 Feb 28 j 20:23	0°♍			620 Aug 20 j 23:37	0°♊	
	615 Apr 14 j 03:33	0°♎		desc. node	620 Sep 29 j 12:03	27°♊07'24	
	615 May 31 j 21:08	0°♏			620 Oct 03 j 13:31	0°♋	
retrograde	615 Aug 04 j 22:08	22°♏41'55		evening set	620 Oct 10 j 07:31	4°♋49'01	
min. Earth dist.	615 Aug 31 j 13:03	18°♏09'08	0.40231 AU	max. Earth dist.	620 Oct 26 j 01:42	16°♋13'47	2.44068 AU
greatest brilliancy	615 Sep 05 j 18:18	16°♏34'06	-2.7m		620 Nov 13 j 16:11	0°♑	
opposition	615 Sep 07 j 04:46	16°♏07'50	-5°-8'-3				
direct	615 Oct 07 j 14:11	10°♏35'42		conjunction	620 Dec 04 j 09:02	15°♏39'29	0°-39'-39
asc. node	615 Dec 07 j 20:25	28°♏58'58		minimum elong	620 Dec 04 j 06:54	15°♏35'24	0°39'38
	615 Dec 09 j 21:37	0°♓			620 Dec 23 j 00:11	0°♎	
	616 Feb 01 j 17:17	0°♈			621 Jan 30 j 08:29	0°♐	
	616 Mar 22 j 06:14	0°♉		morning rise	621 Feb 05 j 21:20	5°♐08'29	
	616 May 09 j 22:28	0°♊			621 Mar 09 j 14:00	0°♑	
	616 Jun 27 j 02:25	0°♋			621 Apr 17 j 14:05	0°♓	

	621 May 28 j 05:52	0°♄	direct	626 May 10 j 11:24	3°♊01'18	
	621 Jul 10 j 12:30	0°♅	desc. node	626 May 22 j 09:06	3°♊55'27	
asc. node	621 Jul 29 j 18:01	12°♅34'13		626 Jul 25 j 11:41	0°♌	
	621 Aug 27 j 00:20	0°♌		626 Sep 09 j 16:57	0°♍	
	621 Oct 24 j 17:46	0°♎		626 Oct 20 j 15:31	0°♏	
retrograde	621 Dec 08 j 15:05	10°♎12'35		626 Nov 28 j 18:05	0°♐	
opposition	622 Jan 17 j 16:07	0°♏29'38 4°31'43		627 Jan 06 j 16:51	0°♑	
greatest brilliancy	622 Jan 17 j 13:47	0°♏31'58 -1.2m		627 Feb 15 j 14:14	0°♒	
min. Earth dist.	622 Jan 17 j 12:11	0°♏33'34 0.67571 AU	asc. node	627 Mar 21 j 14:50	24°♒40'39	
	622 Jan 18 j 21:44	30°♒♌		627 Mar 29 j 02:59	0°♓	
direct	622 Feb 27 j 06:42	20°♓42'42	evening set	627 Apr 15 j 13:50	12°♓12'15	
	622 Apr 11 j 23:24	0°♓		627 May 11 j 14:31	0°♔	
	622 Jun 12 j 15:28	0°♕				
	622 Jul 31 j 19:30	0°♕	conjunction	627 Jun 07 j 19:17	18°♔08'19 0°43'08	
desc. node	622 Aug 17 j 10:59	10°♕58'37	minimum elong	627 Jun 07 j 17:47	18°♔05'51 0°43'08	
	622 Sep 14 j 02:04	0°♌		627 Jun 25 j 21:55	0°♕	
	622 Oct 25 j 05:35	0°♍	max. Earth dist.	627 Jun 25 j 16:31	29°♔51'12 2.62681 AU	
	622 Dec 03 j 08:45	0°♏	morning rise	627 Jul 26 j 12:19	19°♕43'37	
evening set	622 Dec 07 j 03:44	2°♏57'40		627 Aug 11 j 15:33	0°♎	
	623 Jan 10 j 11:38	0°♐		627 Sep 28 j 09:36	0°♏	
				627 Nov 16 j 05:58	0°♑	
conjunction	623 Feb 11 j 14:01	25°♐18'51 -1°-2'-25		628 Jan 06 j 13:40	0°♒	
minimum elong	623 Feb 11 j 15:50	25°♐22'24 1°02'24		628 Mar 08 j 05:08	0°♓	
	623 Feb 17 j 13:38	0°♑	desc. node	628 Apr 08 j 08:08	8°♓14'56	
	623 Mar 28 j 12:16	0°♒	retrograde	628 Apr 19 j 06:39	8°♓57'24	
max. Earth dist.	623 Mar 31 j 20:03	2°♒30'42 2.39574 AU	opposition	628 May 22 j 00:04	2°♓51'42 -2°-28'-48	
morning rise	623 Apr 21 j 13:40	17°♒58'04	greatest brilliancy	628 May 23 j 01:07	2°♓31'55 -2.4m	
	623 May 08 j 01:46	0°♓	min. Earth dist.	628 May 30 j 00:28	0°♓20'27 0.43906 AU	
asc. node	623 Jun 16 j 17:12	27°♓51'44		628 May 31 j 03:25	30°♒♌	
	623 Jun 19 j 20:22	0°♔	direct	628 Jun 26 j 14:11	25°♌30'22	
	623 Aug 04 j 08:02	0°♕		628 Jul 22 j 21:35	0°♍	
	623 Sep 22 j 13:41	0°♎		628 Sep 18 j 19:40	0°♏	
	623 Nov 19 j 20:00	0°♏		628 Nov 01 j 11:02	0°♐	
retrograde	624 Jan 13 j 01:24	13°♏38'30		628 Dec 12 j 23:02	0°♑	
opposition	624 Feb 21 j 02:49	4°♏34'30 4°13'29		629 Jan 23 j 17:24	0°♒	
greatest brilliancy	624 Feb 21 j 19:35	4°♏18'04 -1.3m	asc. node	629 Feb 05 j 13:42	9°♒04'11	
min. Earth dist.	624 Feb 24 j 19:45	3°♏07'21 0.65395 AU		629 Mar 07 j 17:50	0°♓	
	624 Mar 04 j 04:12	30°♒♎		629 Apr 21 j 08:40	0°♔	
direct	624 Apr 02 j 11:25	24°♒32'36	evening set	629 May 30 j 00:10	25°♔13'57	
	624 May 04 j 07:05	0°♕		629 Jun 06 j 09:33	0°♕	
desc. node	624 Jul 04 j 09:37	28°♕41'53				
	624 Jul 06 j 15:12	0°♕	conjunction	629 Jul 16 j 19:00	25°♕51'06 1°07'29	
	624 Aug 22 j 15:56	0°♌	minimum elong	629 Jul 16 j 18:26	25°♕50'12 1°07'28	
	624 Oct 03 j 15:41	0°♍	max. Earth dist.	629 Jul 19 j 06:55	27°♕26'32 2.67215 AU	
	624 Nov 12 j 01:23	0°♏		629 Jul 23 j 07:16	0°♎	
	624 Dec 20 j 07:29	0°♐	morning rise	629 Aug 30 j 21:04	24°♎34'21	
	625 Jan 27 j 13:34	0°♑		629 Sep 08 j 09:11	0°♏	
evening set	625 Feb 15 j 01:24	14°♑16'52		629 Oct 25 j 03:15	0°♑	
	625 Mar 07 j 18:24	0°♒		629 Dec 10 j 10:31	0°♒	
	625 Apr 17 j 14:52	0°♓	desc. node	630 Jan 25 j 13:18	0°♓	
conjunction	625 Apr 19 j 00:40	1°♓00'32 0°-9'-11		630 Feb 24 j 07:22	19°♓12'01	
minimum elong	625 Apr 19 j 01:18	1°♓01'39 0°09'11		630 Mar 13 j 07:25	0°♔	
behind sun begin	625 Apr 18 j 04:33	0°♓24'32	retrograde	630 May 02 j 17:59	0°♕	
behind sun end	625 Apr 19 j 22:02	1°♓38'43	min. Earth dist.	630 Jul 07 j 21:11	21°♕57'32	
asc. node	625 May 03 j 16:58	11°♓25'18	opposition	630 Aug 05 j 01:43	17°♕21'19 0.37626 AU	
max. Earth dist.	625 May 26 j 20:32	27°♓29'02 2.52859 AU	greatest brilliancy	630 Aug 07 j 15:25	16°♕39'39 -6°-47'-13	
	625 May 30 j 12:56	0°♔	direct	630 Aug 07 j 00:36	16°♕49'40 -2.9m	
morning rise	625 Jun 14 j 22:48	10°♔25'08		630 Sep 06 j 05:31	11°♕43'19	
	625 Jul 14 j 14:50	0°♕	asc. node	630 Nov 04 j 18:15	0°♑	
	625 Aug 30 j 20:29	0°♎		630 Dec 24 j 13:38	28°♑36'45	
	625 Oct 19 j 17:44	0°♏		630 Dec 26 j 19:43	0°♒	
	625 Dec 14 j 15:26	0°♑		631 Feb 12 j 12:23	0°♓	
retrograde	626 Feb 22 j 11:09	20°♑32'57		631 Mar 31 j 19:13	0°♔	
opposition	626 Mar 31 j 05:41	12°♑34'51 2°16'38		631 May 18 j 09:23	0°♕	
greatest brilliancy	626 Apr 01 j 03:33	12°♑14'30 -1.7m	evening set	631 Jul 05 j 00:58	0°♎	
min. Earth dist.	626 Apr 07 j 11:19	9°♑53'38 0.56812 AU	max. Earth dist.	631 Jul 07 j 19:20	1°♒44'55	
				631 Aug 11 j 09:08	23°♒44'26 2.66294 AU	

	631 Aug 21 j 03:07	0°♎		asc. node	636 Aug 15 j 10:52	17°♊12'32	
					636 Sep 06 j 15:01	0°♍	
conjunction	631 Aug 22 j 13:14	0°♎54'55	1°04'25	retrograde	636 Nov 25 j 06:29	27°♍17'28	
minimum elong	631 Aug 22 j 14:01	0°♎56'11	1°04'24	min. Earth dist.	637 Jan 02 j 17:28	18°♍05'52	0.66624 AU
morning rise	631 Oct 06 j 05:57	0°♏06'23		opposition	637 Jan 04 j 10:06	17°♍25'03	4°17'06
	631 Oct 06 j 02:06	0°♏		greatest brilliancy	637 Jan 04 j 00:31	17°♍34'40	-1.3m
	631 Nov 19 j 15:00	0°♎		direct	637 Feb 13 j 08:45	7°♍51'32	
	632 Jan 01 j 17:39	0°♏			637 Apr 27 j 19:46	0°♏	
desc. node	632 Jan 12 j 06:31	7°♏28'11			637 Jun 21 j 19:17	0°♎	
	632 Feb 12 j 15:26	0°♍			637 Aug 08 j 15:54	0°♏	
	632 Mar 24 j 19:10	0°♍		desc. node	637 Sep 03 j 03:40	17°♏08'41	
	632 May 05 j 04:35	0°♏			637 Sep 21 j 13:37	0°♎	
	632 Jun 18 j 05:46	0°♎			637 Nov 01 j 15:36	0°♏	
	632 Aug 18 j 01:48	0°♏		evening set	637 Nov 12 j 09:28	8°♏06'43	
retrograde	632 Sep 07 j 23:39	2°♏58'16			637 Dec 10 j 19:45	0°♍	
	632 Sep 28 j 03:38	30°♎♎		max. Earth dist.	637 Dec 28 j 12:26	13°♍51'17	2.37380 AU
min. Earth dist.	632 Oct 06 j 15:47	27°♎17'33	0.47646 AU				
opposition	632 Oct 14 j 18:30	24°♎23'17	-1°-25'-58	conjunction	638 Jan 13 j 18:42	26°♍40'12	-1°-3'-42
greatest brilliancy	632 Oct 14 j 03:32	24°♎36'45	-2.3m	minimum elong	638 Jan 13 j 17:29	26°♍37'47	1°03'43
asc. node	632 Nov 10 j 12:40	17°♎42'32			638 Jan 17 j 23:54	0°♍	
direct	632 Nov 17 j 02:31	17°♎25'01			638 Feb 25 j 02:18	0°♏	
	633 Jan 06 j 03:19	0°♏		morning rise	638 Mar 24 j 21:45	21°♏32'20	
	633 Mar 06 j 02:54	0°♊			638 Apr 05 j 00:22	0°♎	
	633 Apr 26 j 17:38	0°♍			638 May 15 j 13:11	0°♏	
	633 Jun 15 j 03:40	0°♏			638 Jun 27 j 09:22	0°♊	
	633 Aug 01 j 20:51	0°♎		asc. node	638 Jul 03 j 09:00	4°♊02'23	
evening set	633 Aug 13 j 05:18	7°♎18'51			638 Aug 12 j 07:45	0°♍	
max. Earth dist.	633 Sep 04 j 21:37	22°♎09'32	2.60079 AU		638 Oct 02 j 08:34	0°♏	
	633 Sep 16 j 16:13	0°♏			638 Dec 19 j 01:07	0°♎	
				retrograde	638 Dec 29 j 21:54	0°♎41'57	
conjunction	633 Sep 28 j 20:40	8°♏12'43	0°35'10		639 Jan 09 j 07:25	30°♎♏	
minimum elong	633 Sep 28 j 21:49	8°♏14'40	0°35'10	opposition	639 Feb 07 j 11:43	21°♏20'01	4°30'14
	633 Oct 30 j 10:42	0°♎		greatest brilliancy	639 Feb 07 j 21:21	21°♏10'29	-1.2m
morning rise	633 Nov 15 j 19:33	11°♎34'57		min. Earth dist.	639 Feb 09 j 16:15	20°♏27'59	0.67050 AU
desc. node	633 Nov 29 j 05:07	21°♎12'27		direct	639 Mar 20 j 17:35	11°♏20'25	
	633 Dec 11 j 07:07	0°♏			639 May 24 j 16:42	0°♎	
	634 Jan 20 j 14:28	0°♍			639 Jul 17 j 15:04	0°♏	
	634 Feb 28 j 22:06	0°♍		desc. node	639 Jul 22 j 02:36	2°♏47'38	
	634 Apr 09 j 00:32	0°♏			639 Sep 01 j 03:46	0°♎	
	634 May 18 j 23:18	0°♎			639 Oct 12 j 16:29	0°♏	
	634 Jun 30 j 09:33	0°♏			639 Nov 20 j 22:01	0°♍	
	634 Aug 18 j 09:19	0°♊			639 Dec 29 j 01:35	0°♍	
asc. node	634 Sep 28 j 11:23	17°♊16'37		greatest brilliancy	640 Jan 06 j 18:17	6°♍52'12	1.2m
retrograde	634 Oct 21 j 08:35	20°♊33'48		evening set	640 Jan 19 j 10:13	16°♍51'10	
min. Earth dist.	634 Nov 24 j 10:43	12°♊50'30	0.59733 AU		640 Feb 05 j 04:42	0°♏	
opposition	634 Nov 29 j 21:23	10°♊40'54	2°34'34		640 Mar 15 j 05:41	0°♎	
greatest brilliancy	634 Nov 29 j 03:02	10°♊59'07	-1.6m				
direct	635 Jan 06 j 04:36	2°♊02'16		conjunction	640 Mar 26 j 00:10	8°♎04'49	0°-33'-48
	635 Mar 31 j 22:59	0°♍		minimum elong	640 Mar 26 j 02:36	8°♎09'21	0°33'47
	635 May 25 j 10:03	0°♏			640 Apr 24 j 21:57	0°♏	
	635 Jul 13 j 20:46	0°♎		max. Earth dist.	640 May 11 j 06:26	11°♏39'14	2.47791 AU
	635 Aug 29 j 02:58	0°♏		asc. node	640 May 20 j 07:49	18°♏00'26	
evening set	635 Sep 23 j 02:04	16°♏59'06		morning rise	640 May 26 j 17:36	22°♏27'38	
max. Earth dist.	635 Oct 08 j 03:16	27°♏30'05	2.49149 AU		640 Jun 06 j 16:47	0°♊	
	635 Oct 11 j 16:03	0°♎			640 Jul 21 j 19:37	0°♍	
desc. node	635 Oct 17 j 03:45	3°♎54'18			640 Sep 07 j 12:43	0°♏	
					640 Oct 29 j 04:18	0°♎	
conjunction	635 Nov 13 j 14:22	23°♎50'02	0°-17'-9		641 Jan 03 j 08:15	0°♏	
minimum elong	635 Nov 13 j 13:28	23°♎48'21	0°17'09	retrograde	641 Feb 05 j 04:56	5°♏36'02	
	635 Nov 21 j 21:56	0°♏			641 Mar 07 j 06:09	30°♎♎	
	635 Dec 31 j 10:43	0°♍		opposition	641 Mar 15 j 01:18	27°♎07'51	3°16'36
morning rise	636 Jan 10 j 05:07	7°♍33'14		greatest brilliancy	641 Mar 16 j 00:43	26°♎45'28	-1.5m
	636 Feb 07 j 23:42	0°♍		min. Earth dist.	641 Mar 20 j 23:59	24°♎51'38	0.60899 AU
	636 Mar 17 j 08:45	0°♏		direct	641 Apr 25 j 00:33	17°♎15'30	
	636 Apr 25 j 11:35	0°♎		desc. node	641 Jun 08 j 00:33	27°♎28'23	
	636 Jun 05 j 07:34	0°♏			641 Jun 13 j 22:03	0°♏	
	636 Jul 19 j 02:44	0°♊			641 Aug 06 j 20:10	0°♎	

	641 Sep 19 j 12:54	0°♊			646 Oct 13 j 02:31	0°♎		
	641 Oct 29 j 14:47	0°♋			646 Nov 27 j 04:06	0°♌		
	641 Dec 07 j 06:08	0°♍			647 Jan 10 j 03:08	0°♊		
	642 Jan 14 j 19:50	0°♋		desc. node	647 Jan 28 j 21:56	13°♊01'00		
	642 Feb 23 j 08:29	0°♌			647 Feb 22 j 05:16	0°♋		
evening set	642 Mar 25 j 10:22	22°♌02'52			647 Apr 06 j 00:06	0°♍		
	642 Apr 05 j 12:51	0°♎			647 May 20 j 03:48	0°♋		
asc. node	642 Apr 07 j 07:52	1°♎16'28			647 Jul 12 j 13:59	0°♌		
	642 May 18 j 17:10	0°♍		retrograde	647 Aug 18 j 16:32	8°♌42'20		
				min. Earth dist.	647 Sep 14 j 14:14	3°♌51'05	0.42605 AU	
conjunction	642 May 21 j 01:30	1°♍35'28	0°25'55	greatest brilliancy	647 Sep 21 j 00:15	1°♌46'23	-2.5m	
minimum elong	642 May 21 j 00:16	1°♍33'22	0°25'54	opposition	647 Sep 22 j 08:18	1°♌20'15	-3°-46'-31	
max. Earth dist.	642 Jun 15 j 05:24	18°♍25'36	2.59413 AU		647 Sep 26 j 12:55	30°♋		
	642 Jul 02 j 20:32	0°♌		direct	647 Oct 23 j 18:04	25°♋17'32		
morning rise	642 Jul 11 j 08:12	5°♌30'47			647 Nov 21 j 01:52	0°♌		
	642 Aug 18 j 16:01	0°♎		asc. node	647 Nov 28 j 04:35	2°♌21'37		
	642 Oct 05 j 23:21	0°♍			648 Jan 24 j 17:24	0°♎		
	642 Nov 25 j 10:47	0°♎			648 Mar 16 j 07:15	0°♍		
	643 Jan 21 j 04:38	0°♌			648 May 04 j 19:13	0°♌		
retrograde	643 Mar 26 j 09:05	18°♌07'21			648 Jun 22 j 08:26	0°♎		
desc. node	643 Apr 25 j 23:39	12°♌32'05		evening set	648 Jul 29 j 12:47	23°♎27'32		
opposition	643 Apr 29 j 23:18	11°♌11'12	0°-12'-27		648 Aug 08 j 17:54	0°♍		
greatest brilliancy	643 Apr 15 j 04:44	15°♌40'47	-2.2m	max. Earth dist.	648 Aug 25 j 10:50	10°♍48'25	2.63124 AU	
min. Earth dist.	643 May 08 j 10:37	8°♌17'01	0.49094 AU					
direct	643 Jun 06 j 22:38	2°♌40'51		conjunction	648 Sep 13 j 10:46	23°♍16'31	0°49'35	
	643 Aug 19 j 20:56	0°♊		minimum elong	648 Sep 13 j 11:59	23°♍18'31	0°49'33	
	643 Oct 03 j 18:00	0°♋			648 Sep 23 j 13:32	0°♎		
	643 Nov 13 j 13:23	0°♍		morning rise	648 Oct 29 j 14:09	24°♎28'01		
	643 Dec 23 j 14:33	0°♋			648 Nov 06 j 13:40	0°♌		
	644 Feb 02 j 08:54	0°♌		desc. node	648 Dec 15 j 21:26	27°♌53'07		
asc. node	644 Feb 23 j 06:34	14°♌59'31			648 Dec 18 j 19:38	0°♊		
	644 Mar 15 j 15:15	0°♎			649 Jan 28 j 14:35	0°♋		
	644 Apr 28 j 16:30	0°♍			649 Mar 09 j 10:38	0°♍		
evening set	644 May 13 j 10:31	9°♍47'38			649 Apr 18 j 02:20	0°♋		
	644 Jun 13 j 08:30	0°♌			649 May 28 j 19:57	0°♌		
					649 Jul 12 j 02:58	0°♎		
conjunction	644 Jul 01 j 21:25	11°♌57'14	1°01'23		649 Sep 10 j 10:17	0°♍		
minimum elong	644 Jul 01 j 20:20	11°♌55'30	1°01'23	retrograde	649 Oct 05 j 20:31	4°♍07'58		
max. Earth dist.	644 Jul 10 j 01:09	17°♌11'07	2.66075 AU	asc. node	649 Oct 15 j 03:33	3°♍29'52		
	644 Jul 30 j 02:46	0°♎			649 Oct 29 j 21:51	30°♋		
morning rise	644 Aug 16 j 23:50	11°♎22'21		min. Earth dist.	649 Nov 06 j 22:05	27°♋08'23	0.55462 AU	
	644 Sep 15 j 08:27	0°♍		opposition	649 Nov 13 j 16:08	24°♋31'08	1°21'44	
	644 Nov 01 j 16:45	0°♎		greatest brilliancy	649 Nov 13 j 03:06	24°♋43'48	-1.8m	
	644 Dec 19 j 06:45	0°♌		direct	649 Dec 19 j 13:32	16°♋24'57		
	645 Feb 06 j 00:12	0°♊			650 Feb 11 j 03:35	0°♍		
desc. node	645 Mar 12 j 23:22	20°♊15'55			650 Apr 11 j 18:46	0°♌		
	645 Mar 31 j 07:11	0°♋			650 Jun 02 j 12:57	0°♎		
retrograde	645 Jun 05 j 18:15	20°♋41'55			650 Jul 21 j 03:07	0°♍		
opposition	645 Jul 06 j 01:15	15°♋41'59	-6°-15'-50		650 Sep 05 j 03:43	0°♎		
greatest brilliancy	645 Jul 06 j 19:54	15°♋29'26	-2.8m	evening set	650 Sep 06 j 08:58	0°♎49'02		
min. Earth dist.	645 Jul 08 j 21:12	14°♋56'21	0.38021 AU	max. Earth dist.	650 Sep 23 j 11:40	12°♎25'05	2.53918 AU	
direct	645 Aug 05 j 20:57	10°♋23'18			650 Oct 18 j 18:04	0°♌		
	645 Oct 05 j 09:21	0°♍						
	645 Nov 23 j 15:12	0°♋		conjunction	650 Oct 25 j 08:07	4°♌40'17	0°05'19	
	646 Jan 07 j 19:49	0°♌		minimum elong	650 Oct 25 j 08:20	4°♌40'41	0°05'19	
asc. node	646 Jan 10 j 04:48	1°♌35'18		behind sun begin	650 Oct 24 j 11:57	4°♌04'24		
	646 Feb 21 j 21:10	0°♎		behind sun end	650 Oct 26 j 04:44	5°♌16'59		
	646 Apr 08 j 19:04	0°♍		desc. node	650 Nov 02 j 20:44	10°♌46'29		
	646 May 25 j 15:01	0°♌			650 Nov 29 j 04:45	0°♊		
evening set	646 Jun 23 j 03:17	18°♌05'57		morning rise	650 Dec 17 j 03:22	13°♊24'05		
	646 Jul 11 j 21:38	0°♎			651 Jan 07 j 23:32	0°♋		
max. Earth dist.	646 Aug 02 j 09:25	13°♎39'58	2.67290 AU		651 Feb 15 j 18:17	0°♍		
					651 Mar 26 j 08:03	0°♋		
conjunction	646 Aug 08 j 08:11	17°♎27'34	1°08'44		651 May 04 j 15:20	0°♌		
minimum elong	646 Aug 08 j 08:30	17°♎28'04	1°08'44		651 Jun 14 j 19:16	0°♎		
	646 Aug 27 j 22:06	0°♍			651 Jul 29 j 13:37	0°♍		
morning rise	646 Sep 21 j 19:48	16°♍05'36		asc. node	651 Sep 02 j 01:30	20°♍15'54		

	651 Sep 21 j 13:05	0°☿			656 Dec 15 j 07:46	0°≈		
retrograde	651 Nov 12 j 18:14	13°☿55'09			657 Jan 22 j 15:38	0°✠		
min. Earth dist.	651 Dec 19 j 15:18	5°☿14'50	0.64679 AU	evening set	657 Mar 01 j 16:23	29°✠04'12		
opposition	651 Dec 22 j 20:10	3°☿57'40	3°49'41		657 Mar 02 j 22:07	0°☿		
greatest brilliancy	651 Dec 22 j 04:48	4°☿13'06	-1.4m		657 Apr 12 j 20:21	0°♄		
	652 Jan 02 j 04:46	30°♄II		asc. node	657 Apr 23 j 23:31	7°♄55'03		
direct	652 Jan 30 j 22:09	24°II41'46						
	652 Mar 02 j 19:19	0°☿		conjunction	657 May 01 j 07:52	13°♄05'12	0°04'36	
	652 May 09 j 03:16	0°♄		minimum elong	657 May 01 j 07:34	13°♄04'40	0°04'36	
	652 Jun 30 j 02:01	0°♄		behind sun begin	657 Apr 30 j 08:23	12°♄24'04		
	652 Aug 16 j 03:26	0°♄		behind sun end	657 May 02 j 06:45	13°♄45'13		
desc. node	652 Sep 19 j 19:24	23°♄37'40			657 May 25 j 19:27	0°II		
	652 Sep 28 j 20:30	0°♄		max. Earth dist.	657 Jun 03 j 13:00	5°II55'15	2.55401 AU	
evening set	652 Oct 21 j 12:39	16°♄20'27		morning rise	657 Jun 24 j 23:28	20°II14'11		
	652 Nov 08 j 23:26	0°♄			657 Jul 09 j 20:43	0°☿		
max. Earth dist.	652 Nov 09 j 08:33	0°♄17'05	2.41325 AU		657 Aug 25 j 20:52	0°♄		
					657 Oct 14 j 00:27	0°♄		
conjunction	652 Dec 17 j 23:46	29°♄47'13	0°-50'-53		657 Dec 06 j 04:59	0°♄		
minimum elong	652 Dec 17 j 21:19	29°♄42'29	0°50'53		658 Feb 26 j 17:51	0°♄		
	652 Dec 18 j 06:21	0°☿		retrograde	658 Mar 05 j 05:32	0°♄15'12		
	653 Jan 25 j 13:15	0°≈			658 Mar 11 j 13:41	30°♄		
morning rise	653 Feb 22 j 15:58	22°≈07'41		opposition	658 Apr 10 j 07:33	22°♄36'37	1°30'31	
	653 Mar 04 j 17:13	0°✠		greatest brilliancy	658 Apr 11 j 00:21	22°♄21'19	-1.9m	
	653 Apr 12 j 15:35	0°☿		min. Earth dist.	658 Apr 18 j 03:10	19°♄46'20	0.54224 AU	
	653 May 23 j 04:50	0°♄		desc. node	658 May 12 j 15:24	13°♄41'57		
	653 Jul 05 j 05:04	0°II		direct	658 May 19 j 22:08	13°♄20'07		
asc. node	653 Jul 20 j 01:02	9°II50'47			658 Jul 15 j 06:16	0°♄		
	653 Aug 20 j 21:42	0°☿			658 Sep 02 j 18:49	0°♄		
	653 Oct 14 j 08:58	0°♄			658 Oct 14 j 15:16	0°☿		
retrograde	653 Dec 16 j 07:32	18°♄00'00			658 Nov 23 j 04:29	0°≈		
opposition	654 Jan 25 j 05:56	8°♄23'28	4°34'39		659 Jan 01 j 10:12	0°✠		
greatest brilliancy	654 Jan 25 j 07:49	8°♄21'35	-1.2m		659 Feb 10 j 12:55	0°☿		
min. Earth dist.	654 Jan 25 j 21:51	8°♄07'34	0.67671 AU	asc. node	659 Mar 11 j 22:29	21°☿16'42		
	654 Feb 19 j 23:08	30°♄☿			659 Mar 24 j 06:12	0°♄		
direct	654 Mar 07 j 03:46	28°☿30'53		evening set	659 Apr 26 j 12:44	22°♄59'59		
	654 Mar 23 j 08:02	0°♄			659 May 06 j 21:04	0°II		
	654 Jun 05 j 22:52	0°♄						
	654 Jul 26 j 09:58	0°♄		conjunction	659 Jun 17 j 05:26	27°II22'02	0°51'04	
desc. node	654 Aug 07 j 18:08	8°♄00'02		minimum elong	659 Jun 17 j 04:00	27°II19'42	0°51'04	
	654 Sep 09 j 02:12	0°♄			659 Jun 21 j 06:29	0°☿		
	654 Oct 20 j 08:58	0°♄		max. Earth dist.	659 Jul 01 j 11:17	6°☿36'48	2.64117 AU	
	654 Nov 28 j 12:58	0°☿		morning rise	659 Aug 03 j 20:07	28°☿00'24		
evening set	654 Dec 22 j 07:25	18°☿39'30			659 Aug 06 j 23:20	0°♄		
	655 Jan 05 j 16:01	0°≈			659 Sep 23 j 11:43	0°♄		
	655 Feb 12 j 18:02	0°✠			659 Nov 10 j 16:17	0°♄		
					659 Dec 30 j 05:49	0°♄		
conjunction	655 Feb 27 j 19:27	11°✠42'47	0°-54'-56		660 Feb 22 j 07:50	0°♄		
minimum elong	655 Feb 27 j 22:22	11°✠48'24	0°54'55	desc. node	660 Mar 29 j 15:00	15°♄52'39		
	655 Mar 23 j 16:49	0°☿		retrograde	660 May 05 j 10:14	23°♄01'29		
max. Earth dist.	655 Apr 19 j 17:46	20°☿09'27	2.42405 AU	opposition	660 Jun 06 j 00:16	17°♄24'43	-3°-57'-42	
	655 May 03 j 06:23	0°♄		greatest brilliancy	660 Jun 07 j 07:39	17°♄01'18	-2.6m	
morning rise	655 May 05 j 14:02	1°♄40'16		min. Earth dist.	660 Jun 12 j 20:23	15°♄22'41	0.41297 AU	
asc. node	655 Jun 07 j 00:57	24°♄32'45		direct	660 Jul 09 j 22:50	10°♄49'46		
	655 Jun 14 j 23:35	0°II			660 Sep 06 j 16:09	0°☿		
	655 Jul 30 j 05:57	0°☿			660 Oct 24 j 07:50	0°≈		
	655 Sep 16 j 17:29	0°♄			660 Dec 06 j 07:30	0°✠		
	655 Nov 10 j 12:14	0°♄			661 Jan 17 j 21:48	0°☿		
retrograde	656 Jan 21 j 12:34	21°♄44'07		asc. node	661 Jan 26 j 21:23	6°☿15'24		
opposition	656 Feb 29 j 05:01	12°♄51'24	3°57'04		661 Mar 02 j 11:24	0°♄		
greatest brilliancy	656 Mar 01 j 00:52	12°♄32'05	-1.4m		661 Apr 16 j 10:47	0°II		
min. Earth dist.	656 Mar 04 j 17:16	11°♄06'08	0.64072 AU		661 Jun 01 j 17:06	0°☿		
direct	656 Apr 10 j 12:23	2°♄50'46		evening set	661 Jun 07 j 23:22	4°☿00'53		
desc. node	656 Jun 24 j 17:03	27°♄32'03			661 Jul 18 j 17:09	0°♄		
	656 Jun 29 j 05:41	0°♄						
	656 Aug 16 j 21:02	0°♄		conjunction	661 Jul 25 j 01:23	4°♄02'11	1°09'05	
	656 Sep 28 j 08:41	0°♄		minimum elong	661 Jul 25 j 01:09	4°♄01'48	1°09'06	
	656 Nov 06 j 23:07	0°☿		max. Earth dist.	661 Jul 24 j 13:12	3°♄42'47	2.67482 AU	

	661 Sep 03 j 18:08	0° \mathbb{M}		retrograde	666 Oct 29 j 17:12	29° \mathbb{I} 39'30	
morning rise	661 Sep 07 j 19:05	2° \mathbb{M} 35'16		min. Earth dist.	666 Dec 03 j 20:03	21° \mathbb{I} 35'00	0.61731 AU
	661 Oct 20 j 06:50	0° $\underline{\mathbb{A}}$		opposition	666 Dec 08 j 12:25	19° \mathbb{I} 42'53	3°07'17
	661 Dec 05 j 01:56	0° \mathbb{M}		greatest brilliancy	666 Dec 07 j 17:50	20° \mathbb{I} 01'26	-1.5m
	662 Jan 19 j 06:23	0° \mathbb{A}		direct	667 Jan 15 j 12:16	10° \mathbb{I} 49'35	
desc. node	662 Feb 14 j 15:20	17° \mathbb{A} 35'48			667 Mar 23 j 11:39	0° \mathbb{S}	
	662 Mar 05 j 06:32	0° \mathbb{S}			667 May 19 j 15:49	0° \mathbb{Q}	
	662 Apr 20 j 09:31	0° \approx			667 Jul 08 j 20:44	0° \mathbb{M}	
	662 Jun 13 j 09:57	0° \mathbb{H}			667 Aug 24 j 09:42	0° $\underline{\mathbb{A}}$	
retrograde	662 Jul 24 j 06:45	10° \mathbb{H} 03'38		evening set	667 Oct 03 j 04:52	27° $\underline{\mathbb{A}}$ 18'02	
min. Earth dist.	662 Aug 20 j 04:28	5° \mathbb{H} 37'03	0.38730 AU	desc. node	667 Oct 07 j 11:28	0° \mathbb{M} 19'26	
greatest brilliancy	662 Aug 24 j 03:12	4° \mathbb{H} 29'08	-2.8m		667 Oct 07 j 00:31	0° \mathbb{M}	
opposition	662 Aug 25 j 08:40	4° \mathbb{H} 07'56	-6°-2'-34	max. Earth dist.	667 Oct 18 j 01:36	7° \mathbb{M} 53'11	2.46366 AU
	662 Sep 11 j 14:17	30° \mathbb{R} \approx			667 Nov 17 j 05:42	0° \mathbb{A}	
direct	662 Sep 24 j 04:30	28° \approx 56'45					
	662 Oct 06 j 22:56	0° \mathbb{H}		conjunction	667 Nov 25 j 12:44	6° \mathbb{A} 12'58	0°-30'-11
asc. node	662 Dec 14 j 19:51	28° \mathbb{H} 30'34		minimum elong	667 Nov 25 j 11:05	6° \mathbb{A} 09'52	0°30'10
	662 Dec 17 j 11:37	0° \mathbb{Y}			667 Dec 26 j 16:20	0° \mathbb{S}	
	663 Feb 05 j 21:29	0° \mathbb{B}		morning rise	668 Jan 25 j 08:03	23° \mathbb{S} 06'31	
	663 Mar 26 j 07:01	0° \mathbb{I}			668 Feb 03 j 02:54	0° \approx	
	663 May 13 j 10:39	0° \mathbb{S}		greatest brilliancy	668 Mar 02 j 15:15	22° \approx 22'23	1.2m
	663 Jun 30 j 08:53	0° \mathbb{Q}			668 Mar 12 j 09:39	0° \mathbb{H}	
evening set	663 Jul 16 j 02:11	9° \mathbb{Q} 55'30			668 Apr 20 j 09:55	0° \mathbb{Y}	
	663 Aug 16 j 13:20	0° \mathbb{M}			668 May 31 j 02:01	0° \mathbb{B}	
max. Earth dist.	663 Aug 16 j 19:12	0° \mathbb{M} 09'26	2.65399 AU		668 Jul 13 j 11:14	0° \mathbb{I}	
				asc. node	668 Aug 05 j 17:30	15° \mathbb{I} 01'16	
conjunction	663 Aug 30 j 18:14	9° \mathbb{M} 10'45	1°00'05		668 Aug 30 j 12:56	0° \mathbb{S}	
minimum elong	663 Aug 30 j 19:14	9° \mathbb{M} 12'23	1°00'04		668 Nov 02 j 06:39	0° \mathbb{Q}	
	663 Oct 01 j 11:12	0° $\underline{\mathbb{A}}$		retrograde	668 Dec 02 j 22:41	5° \mathbb{Q} 12'37	
morning rise	663 Oct 14 j 19:00	8° $\underline{\mathbb{A}}$ 54'07			668 Dec 31 j 03:09	30° \mathbb{R} \mathbb{S}	
	663 Nov 14 j 19:27	0° \mathbb{M}		min. Earth dist.	669 Jan 11 j 04:44	25° \mathbb{S} 45'49	0.67273 AU
	663 Dec 27 j 14:26	0° \mathbb{A}		opposition	669 Jan 12 j 01:35	25° \mathbb{S} 24'54	4°27'07
desc. node	664 Jan 02 j 13:41	4° \mathbb{A} 15'59		greatest brilliancy	669 Jan 11 j 19:50	25° \mathbb{S} 30'41	-1.2m
	664 Feb 07 j 01:32	0° \mathbb{S}		direct	669 Feb 21 j 10:03	15° \mathbb{S} 43'40	
	664 Mar 18 j 15:50	0° \approx			669 Apr 18 j 13:56	0° \mathbb{Q}	
	664 Apr 28 j 05:27	0° \mathbb{H}			669 Jun 15 j 21:30	0° \mathbb{M}	
	664 Jun 09 j 12:10	0° \mathbb{Y}			669 Aug 03 j 13:02	0° $\underline{\mathbb{A}}$	
	664 Jul 28 j 20:09	0° \mathbb{B}		desc. node	669 Aug 24 j 10:23	13° $\underline{\mathbb{A}}$ 53'03	
retrograde	664 Sep 18 j 17:20	15° \mathbb{B} 23'24			669 Sep 16 j 17:12	0° \mathbb{M}	
min. Earth dist.	664 Oct 18 j 14:23	9° \mathbb{B} 13'34	0.50495 AU		669 Oct 27 j 21:21	0° \mathbb{A}	
opposition	664 Oct 26 j 09:11	6° \mathbb{B} 19'50	0°-16'-35	evening set	669 Nov 25 j 23:23	22° \mathbb{A} 09'52	
greatest brilliancy	664 Nov 04 j 04:14	3° \mathbb{B} 14'09	-2.1m		669 Dec 06 j 01:37	0° \mathbb{S}	
asc. node	664 Oct 31 j 19:09	4° \mathbb{B} 22'08			670 Jan 13 j 05:17	0° \approx	
	664 Nov 17 j 00:48	30° \mathbb{R} \mathbb{Y}					
direct	664 Nov 29 j 15:34	28° \approx \mathbb{Y} 54'52		conjunction	670 Jan 29 j 20:02	13° \approx 07'40	-1°-4'-54
	664 Dec 12 j 21:27	0° \mathbb{B}		minimum elong	670 Jan 29 j 20:31	13° \approx 08'38	1°04'55
	665 Feb 26 j 12:50	0° \mathbb{I}			670 Feb 20 j 07:04	0° \mathbb{H}	
	665 Apr 21 j 01:41	0° \mathbb{S}		max. Earth dist.	670 Mar 03 j 20:30	9° \mathbb{H} 00'51	2.37720 AU
	665 Jun 10 j 04:30	0° \mathbb{Q}			670 Mar 31 j 04:26	0° \mathbb{Y}	
	665 Jul 28 j 04:35	0° \mathbb{M}		morning rise	670 Apr 09 j 21:42	7° \mathbb{Y} 19'46	
evening set	665 Aug 21 j 19:32	15° \mathbb{M} 55'08			670 May 10 j 16:17	0° \mathbb{B}	
max. Earth dist.	665 Sep 11 j 07:06	29° \mathbb{M} 28'20	2.58075 AU		670 Jun 22 j 09:44	0° \mathbb{I}	
	665 Sep 12 j 02:01	0° $\underline{\mathbb{A}}$		asc. node	670 Jun 23 j 16:17	0° \mathbb{I} 52'00	
					670 Aug 06 j 23:34	0° \mathbb{S}	
conjunction	665 Oct 08 j 02:06	17° $\underline{\mathbb{A}}$ 40'02	0°25'11		670 Sep 25 j 17:58	0° \mathbb{Q}	
minimum elong	665 Oct 08 j 03:02	17° $\underline{\mathbb{A}}$ 41'39	0°25'09		670 Nov 26 j 15:15	0° \mathbb{M}	
	665 Oct 25 j 19:11	0° \mathbb{M}		retrograde	671 Jan 06 j 22:33	8° \mathbb{M} 32'56	
desc. node	665 Nov 19 j 12:19	17° \mathbb{M} 36'56			671 Feb 13 j 13:44	30° \mathbb{R} \mathbb{Q}	
morning rise	665 Nov 26 j 10:26	22° \mathbb{M} 37'56		opposition	671 Feb 15 j 06:05	29° \mathbb{Q} 20'22	4°21'53
	665 Dec 06 j 12:19	0° \mathbb{A}		greatest brilliancy	671 Feb 15 j 19:42	29° \mathbb{Q} 06'56	-1.3m
	666 Jan 15 j 15:03	0° \mathbb{S}		min. Earth dist.	671 Feb 18 j 06:23	28° \mathbb{Q} 09'08	0.66257 AU
	666 Feb 23 j 17:48	0° \approx		direct	671 Mar 28 j 14:20	19° \mathbb{Q} 19'01	
	666 Apr 03 j 15:00	0° \mathbb{H}			671 May 14 j 03:32	0° \mathbb{M}	
	666 May 13 j 06:25	0° \mathbb{Y}			671 Jul 11 j 08:41	0° $\underline{\mathbb{A}}$	
	666 Jun 24 j 01:25	0° \mathbb{B}		desc. node	671 Jul 12 j 08:40	0° $\underline{\mathbb{A}}$ 36'05	
	666 Aug 09 j 18:18	0° \mathbb{I}			671 Aug 26 j 18:06	0° \mathbb{M}	
asc. node	666 Sep 18 j 19:02	20° \mathbb{I} 16'33			671 Oct 07 j 14:10	0° \mathbb{A}	

	671 Nov 15 j 22:39	0°☾			676 Sep 10 j 15:10	0°♍		
	671 Dec 24 j 03:51	0°♊			676 Oct 27 j 15:14	0°♈		
	672 Jan 31 j 08:17	0°♋			676 Dec 13 j 10:46	0°♌		
evening set	672 Feb 04 j 04:52	3°♋00'09			677 Jan 29 j 12:59	0°♌		
	672 Mar 10 j 10:26	0°♍		desc. node	677 Mar 03 j 06:33	20°♌21'21		
					677 Mar 19 j 07:42	0°☾		
conjunction	672 Apr 08 j 23:05	21°♍53'38	0°-19'-47		677 May 16 j 10:52	0°♊		
minimum elong	672 Apr 09 j 00:30	21°♍56'13	0°19'47	retrograde	677 Jun 24 j 03:26	8°♊27'27		
	672 Apr 20 j 03:48	0°♌		opposition	677 Jul 24 j 07:26	3°♊26'27	-6°-51'-48	
asc. node	672 May 10 j 16:15	14°♌34'38		greatest brilliancy	677 Jul 24 j 08:19	3°♊25'52	-2.9m	
max. Earth dist.	672 May 20 j 17:14	21°♌34'44	2.50651 AU	min. Earth dist.	677 Jul 24 j 04:39	3°♊28'17	0.37403 AU	
	672 Jun 01 j 22:51	0°♈			677 Aug 07 j 16:34	30°♌☾		
morning rise	672 Jun 06 j 22:13	3°♈23'21		direct	677 Aug 23 j 03:06	28°☾28'49		
	672 Jul 16 j 23:33	0°☾			677 Sep 07 j 10:23	0°♊		
	672 Sep 02 j 08:03	0°♈			677 Nov 13 j 15:48	0°♋		
	672 Oct 22 j 19:14	0°♍		asc. node	677 Dec 31 j 12:30	29°♋52'48		
	672 Dec 20 j 10:00	0°♈			677 Dec 31 j 16:58	0°♍		
retrograde	673 Feb 14 j 18:42	14°♈25'15			678 Feb 16 j 00:04	0°♌		
opposition	673 Mar 24 j 01:49	6°♈12'41	2°44'27		678 Apr 03 j 13:59	0°♈		
greatest brilliancy	673 Mar 25 j 00:59	5°♈50'49	-1.6m		678 May 20 j 19:04	0°☾		
min. Earth dist.	673 Mar 30 j 18:10	3°♈41'47	0.58745 AU	evening set	678 Jul 01 j 14:23	26°☾25'00		
	673 Apr 10 j 16:43	30°♌☾			678 Jul 07 j 06:18	0°♈		
direct	673 May 03 j 16:43	26°♌29'12		max. Earth dist.	678 Aug 07 j 16:27	19°♈58'21	2.66848 AU	
	673 May 28 j 00:58	0°♈						
desc. node	673 May 29 j 08:13	0°♈21'46		conjunction	678 Aug 16 j 11:44	25°♈36'19	1°06'41	
	673 Jul 30 j 12:46	0°♌		minimum elong	678 Aug 16 j 12:20	25°♈37'16	1°06'41	
	673 Sep 13 j 12:42	0°♌			678 Aug 23 j 08:00	0°♍		
	673 Oct 24 j 01:40	0°☾		morning rise	678 Sep 30 j 00:25	24°♌28'27		
	673 Dec 01 j 22:51	0°♊			678 Oct 08 j 09:57	0°♈		
	674 Jan 09 j 16:51	0°♋			678 Nov 22 j 04:48	0°♌		
	674 Feb 18 j 09:08	0°♍			679 Jan 04 j 16:33	0°♌		
asc. node	674 Mar 28 j 14:14	27°♍47'21		desc. node	679 Jan 19 j 05:27	10°♌12'48		
	674 Mar 31 j 16:54	0°♌			679 Feb 16 j 01:57	0°☾		
evening set	674 Apr 06 j 17:45	4°♌16'01			679 Mar 29 j 20:32	0°♊		
	674 May 13 j 23:52	0°♈			679 May 11 j 03:30	0°♋		
					679 Jun 26 j 09:44	0°♍		
conjunction	674 May 31 j 09:09	11°♈40'54	0°36'24	retrograde	679 Aug 31 j 04:53	23°♍23'08		
minimum elong	674 May 31 j 07:41	11°♈38'28	0°36'22	min. Earth dist.	679 Sep 27 j 23:46	18°♍05'12	0.45324 AU	
max. Earth dist.	674 Jun 21 j 10:40	25°♈35'55	2.61325 AU	greatest brilliancy	679 Oct 05 j 03:09	15°♍37'40	-2.4m	
	674 Jun 28 j 04:21	0°☾		opposition	679 Oct 06 j 02:38	15°♍17'17	-2°-23'-57	
morning rise	674 Jul 20 j 03:06	14°☾12'00		direct	679 Nov 07 j 14:35	8°♍42'57		
	674 Aug 13 j 21:40	0°♈		asc. node	679 Nov 18 j 11:54	9°♍28'39		
	674 Sep 30 j 20:25	0°♍			680 Jan 15 j 00:08	0°♌		
	674 Nov 19 j 07:02	0°♈			680 Mar 09 j 21:57	0°♈		
	675 Jan 11 j 08:36	0°♌			680 Apr 29 j 12:02	0°☾		
retrograde	675 Apr 08 j 21:01	29°♌53'54			680 Jun 17 j 12:32	0°♈		
desc. node	675 Apr 16 j 07:31	29°♌33'24			680 Aug 04 j 02:50	0°♍		
opposition	675 May 12 j 11:26	23°♌24'50	-1°-26'-8	evening set	680 Aug 06 j 21:43	1°♌47'22		
greatest brilliancy	675 May 13 j 03:50	23°♌11'20	-2.3m	max. Earth dist.	680 Aug 31 j 09:11	17°♌41'19	2.61546 AU	
min. Earth dist.	675 May 20 j 21:50	20°♌38'50	0.46195 AU		680 Sep 18 j 23:19	0°♈		
direct	675 Jun 18 j 06:33	15°♌29'34						
	675 Aug 07 j 14:08	0°♌		conjunction	680 Sep 22 j 03:35	2°♈07'37	0°41'41	
	675 Sep 25 j 21:11	0°☾		minimum elong	680 Sep 22 j 04:48	2°♈09'39	0°41'40	
	675 Nov 06 j 23:22	0°♊			680 Nov 01 j 21:14	0°♌		
	675 Dec 17 j 16:59	0°♋		morning rise	680 Nov 08 j 04:20	4°♌24'40		
	676 Jan 27 j 22:21	0°♍		desc. node	680 Dec 06 j 04:22	24°♌22'08		
asc. node	676 Feb 13 j 12:34	11°♍49'07			680 Dec 13 j 22:47	0°♌		
	676 Mar 10 j 12:55	0°♌			681 Jan 23 j 11:41	0°☾		
	676 Apr 23 j 20:12	0°♈			681 Mar 04 j 00:43	0°♊		
evening set	676 May 23 j 01:26	19°♈13'19			681 Apr 12 j 08:14	0°♋		
	676 Jun 08 j 16:11	0°☾			681 May 22 j 12:52	0°♍		
					681 Jul 04 j 12:20	0°♌		
conjunction	676 Jul 10 j 12:15	20°☾26'32	1°05'25		681 Aug 24 j 23:29	0°♈		
minimum elong	676 Jul 10 j 11:27	20°☾25'15	1°05'26	asc. node	681 Oct 05 j 10:05	13°♈34'13		
max. Earth dist.	676 Jul 15 j 10:51	23°☾35'54	2.66820 AU	retrograde	681 Oct 14 j 20:40	14°♈10'53		
	676 Jul 25 j 11:45	0°♈		min. Earth dist.	681 Nov 17 j 01:40	6°♈46'54	0.57917 AU	
morning rise	676 Aug 24 j 23:27	19°♈24'07		greatest brilliancy	681 Nov 22 j 10:18	4°♈40'24	-1.7m	

opposition	681 Nov 23 j 03:33	4°II23'25	2°06'50	conjunction	687 Mar 15 j 12:34	27°X26'51	0°-43'-44
	681 Dec 05 j 05:43	30°R8		minimum elong	687 Mar 15 j 15:30	27°X32'27	0°43'43
direct	681 Dec 29 j 20:21	25°858'27			687 Mar 18 j 21:23	0°Y	
	682 Jan 25 j 21:17	0°II			687 Apr 28 j 11:04	0°8	
	682 Apr 04 j 23:40	0°8		max. Earth dist.	687 May 03 j 22:39	3°856'33	2.45390 AU
	682 May 28 j 04:29	0°Q		morning rise	687 May 18 j 13:30	14°819'36	
	682 Jul 16 j 06:50	0°n		asc. node	687 May 28 j 06:51	21°807'39	
	682 Aug 31 j 11:46	0°A			687 Jun 10 j 03:40	0°II	
evening set	682 Sep 15 j 17:58	10°A18'18			687 Jul 25 j 06:10	0°8	
max. Earth dist.	682 Oct 01 j 12:52	21°A10'50	2.51346 AU		687 Sep 11 j 04:30	0°Q	
	682 Oct 14 j 02:32	0°M			687 Nov 02 j 19:41	0°n	
desc. node	682 Oct 24 j 03:01	7°M07'44			688 Jan 28 j 06:28	0°A	
				retrograde	688 Jan 30 j 07:34	0°A01'32	
conjunction	682 Nov 05 j 00:00	15°M41'31	0°-7'-26		688 Feb 01 j 08:15	30°Rn	
minimum elong	682 Nov 04 j 23:38	15°M40'51	0°07'27	opposition	688 Mar 08 j 13:48	21°n21'36	3°35'23
behind sun begin	682 Nov 04 j 03:41	15°M04'40		greatest brilliancy	688 Mar 09 j 11:52	21°n00'19	-1.4m
behind sun end	682 Nov 05 j 19:34	16°M17'04		min. Earth dist.	688 Mar 13 j 21:02	19°n19'04	0.62447 AU
	682 Nov 24 j 11:39	0°x		direct	688 Apr 18 j 17:52	11°n24'40	
morning rise	682 Dec 30 j 06:57	27°x01'53		desc. node	688 Jun 15 j 00:01	27°n20'08	
	683 Jan 03 j 03:46	0°8			688 Jun 20 j 11:09	0°A	
	683 Feb 10 j 19:34	0°≈			688 Aug 10 j 16:47	0°M	
	683 Mar 21 j 06:32	0°X			688 Sep 22 j 21:00	0°x	
	683 Apr 29 j 10:21	0°Y			688 Nov 01 j 18:10	0°8	
	683 Jun 09 j 07:53	0°8			688 Dec 10 j 06:22	0°≈	
	683 Jul 23 j 09:09	0°II			689 Jan 17 j 16:52	0°X	
asc. node	683 Aug 23 j 09:35	19°II06'01			689 Feb 26 j 01:35	0°Y	
	683 Sep 12 j 03:03	0°8		evening set	689 Mar 15 j 10:55	12°Y53'25	
retrograde	683 Nov 20 j 12:57	22°806'47			689 Apr 08 j 01:44	0°8	
min. Earth dist.	683 Dec 28 j 07:29	13°809'02	0.65875 AU	asc. node	689 Apr 14 j 06:44	4°825'10	
opposition	683 Dec 30 j 16:49	12°811'28	4°07'24				
greatest brilliancy	683 Dec 30 j 04:20	12°824'00	-1.3m	conjunction	689 May 12 j 20:00	24°821'01	0°17'20
direct	684 Feb 08 j 07:21	2°845'23		minimum elong	689 May 12 j 19:04	24°819'25	0°17'20
	684 May 02 j 01:46	0°Q			689 May 21 j 02:16	0°II	
	684 Jun 24 j 16:16	0°n		max. Earth dist.	689 Jun 10 j 14:37	13°II49'27	2.57706 AU
	684 Aug 11 j 05:46	0°A		morning rise	689 Jul 04 j 12:12	29°II35'29	
desc. node	684 Sep 10 j 02:33	20°A11'22			689 Jul 05 j 03:14	0°8	
	684 Sep 24 j 02:40	0°M			689 Aug 20 j 23:25	0°Q	
evening set	684 Nov 02 j 13:42	28°M44'14			689 Oct 08 j 13:45	0°n	
	684 Nov 04 j 06:12	0°x			689 Nov 28 j 23:22	0°A	
max. Earth dist.	684 Nov 30 j 10:49	19°x53'58	2.38801 AU		690 Jan 29 j 02:11	0°M	
	684 Dec 13 j 12:09	0°8		retrograde	690 Mar 16 j 18:46	10°M32'48	
conjunction	685 Jan 01 j 18:02	15°802'46	0°-59'-36	opposition	690 Apr 21 j 02:28	3°M16'36	0°35'19
minimum elong	685 Jan 01 j 15:58	14°858'43	0°59'37	greatest brilliancy	690 Apr 21 j 10:04	3°M09'52	-2.0m
	685 Jan 20 j 17:38	0°≈		min. Earth dist.	690 Apr 29 j 09:37	0°M21'09	0.51441 AU
	685 Feb 27 j 20:28	0°X			690 Apr 30 j 10:27	30°Rn	
morning rise	685 Mar 11 j 20:35	9°X21'25		desc. node	690 May 02 j 22:49	29°A10'00	
	685 Apr 07 j 17:49	0°Y		direct	690 May 29 j 22:05	24°A22'58	
	685 May 18 j 05:28	0°8			690 Jun 29 j 06:03	0°M	
	685 Jun 30 j 01:33	0°II			690 Aug 25 j 20:30	0°x	
asc. node	685 Jul 10 j 08:21	6°II54'37			690 Oct 08 j 03:36	0°8	
	685 Aug 15 j 04:28	0°8			690 Nov 17 j 07:35	0°≈	
	685 Oct 06 j 05:19	0°Q			690 Dec 26 j 22:42	0°X	
retrograde	685 Dec 24 j 01:29	25°Q44'01		asc. node	691 Feb 05 j 08:34	0°Y	
opposition	686 Feb 01 j 19:48	16°Q15'02	4°33'22		691 Mar 02 j 05:44	17°Y56'41	
greatest brilliancy	686 Feb 02 j 01:55	16°Q08'57	-1.2m		691 Mar 19 j 07:29	0°8	
min. Earth dist.	686 Feb 03 j 07:35	15°Q39'29	0.67462 AU	evening set	691 May 02 j 02:42	0°II	
direct	686 Mar 14 j 23:07	6°Q18'11			691 May 06 j 22:25	3°II13'46	
	686 May 29 j 11:38	0°n			691 Jun 16 j 14:33	0°8	
	686 Jul 20 j 19:30	0°A		conjunction	691 Jun 26 j 07:30	6°817'09	0°57'35
desc. node	686 Jul 29 j 01:47	5°A14'31		minimum elong	691 Jun 26 j 06:15	6°815'07	0°57'34
	686 Sep 04 j 00:19	0°M		max. Earth dist.	691 Jul 07 j 01:46	13°813'15	2.65296 AU
	686 Oct 15 j 11:36	0°x			691 Aug 02 j 07:21	0°Q	
	686 Nov 23 j 16:59	0°8		morning rise	691 Aug 12 j 00:21	6°Q10'32	
	686 Dec 31 j 20:17	0°≈			691 Sep 18 j 15:28	0°n	
evening set	687 Jan 07 j 01:17	4°≈54'25			691 Nov 05 j 07:41	0°A	
	687 Feb 07 j 22:25	0°X			691 Dec 23 j 15:38	0°M	

	692 Feb 12 j 03:28	0°♊			697 Jun 05 j 02:40	0°♏		
desc. node	692 Mar 19 j 22:38	19°♊36'19			697 Jul 23 j 11:24	0°♎		
	692 Apr 12 j 18:16	0°♌		evening set	697 Aug 30 j 13:44	24°♎43'46		
retrograde	692 May 22 j 13:45	8°♌26'28			697 Sep 07 j 11:41	0°♍		
opposition	692 Jun 22 j 08:21	3°♌14'08	-5°-22'-40	max. Earth dist.	697 Sep 18 j 01:03	7°♍06'24	2.55870 AU	
greatest brilliancy	692 Jun 23 j 12:45	2°♌54'10	-2.7m					
min. Earth dist.	692 Jun 27 j 06:31	1°♌51'27	0.39197 AU	conjunction	697 Oct 17 j 16:28	27°♍32'27	0°14'07	
	692 Jul 04 j 10:42	30°♋♊		minimum elong	697 Oct 17 j 17:04	27°♍33'30	0°14'06	
direct	692 Jul 24 j 11:10	27°♊24'55		behind sun begin	697 Oct 17 j 06:39	27°♍15'14		
	692 Aug 13 j 04:55	0°♌		behind sun end	697 Oct 18 j 03:29	27°♍51'46		
	692 Oct 14 j 09:22	0°♍			697 Oct 21 j 04:26	0°♌		
	692 Nov 28 j 22:11	0°♋		desc. node	697 Nov 09 j 20:11	14°♌00'08		
	693 Jan 11 j 17:22	0°♎			697 Dec 01 j 18:51	0°♊		
asc. node	693 Jan 17 j 04:00	3°♎43'19		morning rise	697 Dec 07 j 19:00	4°♊26'30		
	693 Feb 24 j 23:47	0°♏			698 Jan 10 j 17:41	0°♌		
	693 Apr 11 j 10:01	0°♐			698 Feb 18 j 15:55	0°♍		
	693 May 27 j 22:51	0°♑			698 Mar 29 j 08:28	0°♋		
evening set	693 Jun 16 j 17:31	12°♑36'34			698 May 07 j 18:05	0°♎		
	693 Jul 14 j 02:05	0°♏			698 Jun 18 j 01:52	0°♏		
max. Earth dist.	693 Jul 29 j 18:35	9°♏58'35	2.67480 AU		698 Aug 02 j 09:33	0°♐		
				asc. node	698 Sep 09 j 00:44	21°♐07'47		
conjunction	693 Aug 02 j 06:30	12°♏12'10	1°09'21		698 Sep 29 j 00:51	0°♑		
minimum elong	693 Aug 02 j 06:34	12°♏12'18	1°09'21	retrograde	698 Nov 06 j 19:50	8°♑23'40		
	693 Aug 30 j 02:53	0°♎			698 Dec 12 j 21:55	30°♋♐		
morning rise	693 Sep 15 j 19:25	10°♎44'24		min. Earth dist.	698 Dec 12 j 22:57	29°♐58'58	0.63489 AU	
	693 Oct 15 j 11:06	0°♍		opposition	698 Dec 16 j 20:09	28°♐25'39	3°34'02	
	693 Nov 29 j 20:28	0°♌		greatest brilliancy	698 Dec 16 j 02:50	28°♐42'59	-1.4m	
	694 Jan 13 j 07:51	0°♊		direct	699 Jan 24 j 11:50	19°♐19'12		
desc. node	694 Feb 04 j 21:17	15°♊24'24			699 Mar 12 j 18:29	0°♑		
	694 Feb 26 j 03:48	0°♌			699 May 13 j 13:11	0°♏		
	694 Apr 11 j 02:03	0°♍			699 Jul 03 j 17:57	0°♎		
	694 May 27 j 15:34	0°♋			699 Aug 19 j 15:09	0°♍		
retrograde	694 Aug 08 j 05:12	27°♋07'32		desc. node	699 Sep 27 j 18:54	26°♍46'26		
min. Earth dist.	694 Sep 03 j 18:01	22°♋32'27	0.40642 AU		699 Oct 02 j 08:34	0°♌		
greatest brilliancy	694 Sep 09 j 06:37	20°♋50'56	-2.7m	evening set	699 Oct 13 j 20:48	8°♌13'00		
opposition	694 Sep 10 j 16:46	20°♋24'38	-4°-49'-54	max. Earth dist.	699 Oct 29 j 20:06	19°♌49'45	2.43565 AU	
direct	694 Oct 11 j 06:50	14°♋47'01			699 Nov 12 j 13:38	0°♊		
asc. node	694 Dec 05 j 03:45	0°♎03'46						
	694 Dec 05 j 00:31	0°♎		conjunction	699 Dec 08 j 08:11	19°♊30'33	0°-42'-31	
	695 Jan 29 j 14:07	0°♏		minimum elong	699 Dec 08 j 05:56	19°♊26'14	0°42'31	
	695 Mar 20 j 12:53	0°♐			699 Dec 21 j 22:59	0°♌		
	695 May 08 j 09:03	0°♑			700 Jan 29 j 07:39	0°♍		
	695 Jun 25 j 15:21	0°♏		morning rise	700 Feb 10 j 11:57	9°♍35'01		
evening set	695 Jul 24 j 08:21	18°♏06'27			700 Mar 07 j 12:29	0°♋		
	695 Aug 11 j 23:05	0°♎			700 Apr 15 j 10:47	0°♎		
max. Earth dist.	695 Aug 22 j 07:10	6°♎40'07	2.64239 AU		700 May 25 j 23:35	0°♏		
					700 Jul 08 j 01:20	0°♐		
conjunction	695 Sep 08 j 02:19	17°♎36'37	0°54'26	asc. node	700 Jul 27 j 00:13	12°♐28'41		
minimum elong	695 Sep 08 j 03:28	17°♎38'31	0°54'26		700 Aug 24 j 02:58	0°♑		
	695 Sep 26 j 20:22	0°♍			700 Oct 19 j 21:24	0°♏		
morning rise	695 Oct 23 j 15:58	18°♍03'59		retrograde	700 Dec 10 j 14:23	13°♏01'55		
	695 Nov 10 j 00:50	0°♌		opposition	701 Jan 19 j 15:47	3°♏19'47	4°32'54	
	695 Dec 22 j 13:03	0°♊		greatest brilliancy	701 Jan 19 j 14:08	3°♏21'26	-1.2m	
desc. node	695 Dec 23 j 20:23	0°♊56'19		min. Earth dist.	701 Jan 19 j 14:58	3°♏20'36	0.67627 AU	
	696 Feb 01 j 15:20	0°♌			701 Jan 28 j 04:36	30°♋♑		
	696 Mar 12 j 18:54	0°♍		direct	701 Mar 01 j 08:50	23°♑31'50		
	696 Apr 21 j 18:51	0°♋			701 Apr 05 j 23:21	0°♏		
	696 Jun 02 j 00:17	0°♎			701 Jun 09 j 14:34	0°♎		
	696 Jul 17 j 16:04	0°♏			701 Jul 29 j 07:04	0°♍		
retrograde	696 Sep 28 j 16:19	26°♏48'05		desc. node	701 Aug 14 j 17:18	10°♍45'43		
asc. node	696 Oct 22 j 02:50	22°♏51'38			701 Sep 11 j 19:20	0°♌		
min. Earth dist.	696 Oct 29 j 19:07	20°♏10'22	0.53306 AU		701 Oct 23 j 02:05	0°♊		
opposition	696 Nov 06 j 01:50	17°♏23'30	0°43'26		701 Dec 01 j 06:57	0°♌		
greatest brilliancy	696 Nov 05 j 17:57	17°♏31'02	-1.9m	evening set	701 Dec 10 j 11:14	7°♌10'27		
direct	696 Dec 11 j 06:08	9°♏34'43			702 Jan 08 j 10:23	0°♍		
	697 Feb 17 j 15:09	0°♐						
	697 Apr 15 j 02:26	0°♑		conjunction	702 Feb 15 j 04:45	29°♍45'51	-1°-1'-1	

minimum elong	702 Feb 15 j 06:55	29° \approx 50'06	1°01'02			707 Mar 02 j 23:48	0° \mathcal{Z}	
	702 Feb 15 j 11:59	0° \mathcal{H}		desc. node		707 Apr 06 j 13:58	11° \mathcal{Z} 10'47	
	702 Mar 26 j 09:22	0° \mathcal{Y}		retrograde		707 Apr 23 j 21:17	12° \mathcal{Z} 54'02	
max. Earth dist.	702 Apr 05 j 05:43	7° \mathcal{Y} 25'43	2.40086 AU	opposition		707 May 26 j 08:09	6° \mathcal{Z} 54'08	-2°-50'00
morning rise	702 Apr 24 j 20:33	21° \mathcal{Y} 58'51		greatest brilliancy		707 May 27 j 11:38	6° \mathcal{Z} 32'37	-2.5m
	702 May 05 j 20:48	0° \mathcal{B}		min. Earth dist.		707 Jun 03 j 03:21	4° \mathcal{Z} 28'05	0.43372 AU
asc. node	702 Jun 14 j 00:17	27° \mathcal{B} 35'48				707 Jun 23 j 23:28	30° $\mathcal{R}\mathcal{M}$	
	702 Jun 17 j 12:29	0° \mathcal{II}		direct		707 Jun 30 j 15:52	29° \mathcal{M} 41'21	
	702 Aug 01 j 19:44	0° \mathcal{S}				707 Jul 07 j 07:53	0° \mathcal{Z}	
	702 Sep 19 j 16:27	0° \mathcal{Q}				707 Sep 16 j 05:15	0° \mathcal{Z}	
	702 Nov 15 j 10:28	0° \mathcal{M}				707 Oct 30 j 15:39	0° \approx	
retrograde	703 Jan 15 j 04:04	16° \mathcal{M} 29'50				707 Dec 11 j 10:15	0° \mathcal{H}	
opposition	703 Feb 23 j 04:00	7° \mathcal{M} 27'35	4°08'54			708 Jan 22 j 07:16	0° \mathcal{Y}	
greatest brilliancy	703 Feb 23 j 21:11	7° \mathcal{M} 10'46	-1.3m	asc. node		708 Feb 03 j 20:38	8° \mathcal{Y} 51'24	
min. Earth dist.	703 Feb 27 j 00:05	5° \mathcal{M} 57'32	0.65181 AU			708 Mar 05 j 08:27	0° \mathcal{B}	
	703 Mar 16 j 16:26	30° $\mathcal{R}\mathcal{Q}$				708 Apr 18 j 23:08	0° \mathcal{II}	
direct	703 Apr 05 j 12:55	27° \mathcal{Q} 25'57		evening set		708 Jun 01 j 06:14	28° \mathcal{II} 14'34	
	703 Apr 26 j 18:23	0° \mathcal{M}				708 Jun 03 j 23:40	0° \mathcal{S}	
desc. node	703 Jul 02 j 16:14	28° \mathcal{M} 55'40						
	703 Jul 04 j 13:15	0° \mathcal{A}		conjunction		708 Jul 18 j 21:15	28° \mathcal{S} 43'35	1°08'02
	703 Aug 21 j 04:27	0° \mathcal{M}		minimum elong		708 Jul 18 j 20:46	28° \mathcal{S} 42'49	1°08'02
	703 Oct 02 j 10:01	0° \mathcal{Z}				708 Jul 20 j 21:13	0° \mathcal{Q}	
	703 Nov 10 j 22:23	0° \mathcal{Z}		max. Earth dist.		708 Jul 20 j 18:23	29° \mathcal{S} 55'30	2.67293 AU
	703 Dec 19 j 05:23	0° \approx		morning rise		708 Sep 01 j 21:22	27° \mathcal{Q} 23'58	
	704 Jan 26 j 11:11	0° \mathcal{H}				708 Sep 05 j 23:09	0° \mathcal{M}	
evening set	704 Feb 19 j 10:32	18° \mathcal{H} 29'35				708 Oct 22 j 16:45	0° \mathcal{A}	
	704 Mar 05 j 14:48	0° \mathcal{Y}				708 Dec 07 j 22:08	0° \mathcal{M}	
	704 Apr 15 j 09:29	0° \mathcal{B}				709 Jan 22 j 20:15	0° \mathcal{Z}	
				desc. node		709 Feb 21 j 14:21	19° \mathcal{Z} 21'21	
conjunction	704 Apr 21 j 23:45	4° \mathcal{B} 43'05	0°-5'-38			709 Mar 10 j 03:37	0° \mathcal{Z}	
minimum elong	704 Apr 22 j 00:07	4° \mathcal{B} 43'45	0°05'38			709 Apr 28 j 04:38	0° \approx	
behind sun begin	704 Apr 21 j 00:37	4° \mathcal{B} 01'51		retrograde		709 Jul 11 j 15:09	26° \approx 49'07	
behind sun end	704 Apr 22 j 23:38	5° \mathcal{B} 25'36		min. Earth dist.		709 Aug 08 j 12:35	22° \approx 16'55	0.37741 AU
asc. node	704 Apr 30 j 22:48	11° \mathcal{B} 04'09		opposition		709 Aug 11 j 16:01	21° \approx 25'18	-6°-40'-41
	704 May 28 j 05:25	0° \mathcal{II}		greatest brilliancy		709 Aug 10 j 21:38	21° \approx 37'55	-2.8m
max. Earth dist.	704 May 29 j 01:19	0° \mathcal{II} 34'00	2.53358 AU	direct		709 Sep 10 j 05:57	16° \approx 27'36	
morning rise	704 Jun 17 j 10:43	13° \mathcal{II} 39'51				709 Oct 30 j 05:16	0° \mathcal{H}	
	704 Jul 12 j 04:49	0° \mathcal{S}		asc. node		709 Dec 21 j 19:02	28° \mathcal{H} 57'55	
	704 Aug 28 j 06:56	0° \mathcal{Q}				709 Dec 23 j 12:04	0° \mathcal{Y}	
	704 Oct 16 j 20:58	0° \mathcal{M}				710 Feb 09 j 17:05	0° \mathcal{B}	
	704 Dec 10 j 17:28	0° \mathcal{A}				710 Mar 29 j 04:41	0° \mathcal{II}	
retrograde	705 Feb 24 j 23:05	23° \mathcal{A} 41'37				710 May 15 j 21:08	0° \mathcal{S}	
opposition	705 Apr 02 j 15:24	15° \mathcal{A} 46'47	2°04'43			710 Jul 02 j 14:16	0° \mathcal{Q}	
greatest brilliancy	705 Apr 03 j 11:56	15° \mathcal{A} 27'46	-1.7m	evening set		710 Jul 09 j 22:19	4° \mathcal{Q} 38'04	
min. Earth dist.	705 Apr 10 j 00:10	13° \mathcal{A} 03'35	0.56349 AU	max. Earth dist.		710 Aug 13 j 00:20	26° \mathcal{Q} 19'23	2.66154 AU
direct	705 May 12 j 18:51	6° \mathcal{A} 16'20				710 Aug 18 j 17:49	0° \mathcal{M}	
desc. node	705 May 19 j 14:57	6° \mathcal{A} 34'29						
	705 Jul 21 j 22:37	0° \mathcal{M}		conjunction		710 Aug 24 j 15:10	3° \mathcal{M} 47'34	1°03'18
	705 Sep 07 j 01:59	0° \mathcal{Z}		minimum elong		710 Aug 24 j 16:00	3° \mathcal{M} 48'56	1°03'18
	705 Oct 18 j 07:37	0° \mathcal{Z}				710 Oct 03 j 18:02	0° \mathcal{A}	
	705 Nov 26 j 12:57	0° \approx		morning rise		710 Oct 08 j 08:43	3° \mathcal{A} 03'30	
	706 Jan 04 j 12:24	0° \mathcal{H}				710 Nov 17 j 07:43	0° \mathcal{M}	
	706 Feb 13 j 09:11	0° \mathcal{Y}				710 Dec 30 j 10:24	0° \mathcal{Z}	
asc. node	706 Mar 18 j 21:32	24° \mathcal{Y} 20'41		desc. node		711 Jan 09 j 12:51	7° \mathcal{Z} 09'54	
	706 Mar 26 j 20:37	0° \mathcal{B}				711 Feb 10 j 07:16	0° \mathcal{Z}	
evening set	706 Apr 18 j 05:33	15° \mathcal{B} 37'42				711 Mar 23 j 08:37	0° \approx	
	706 May 09 j 06:35	0° \mathcal{II}				711 May 03 j 12:37	0° \mathcal{H}	
						711 Jun 15 j 22:38	0° \mathcal{Y}	
conjunction	706 Jun 10 j 03:46	21° \mathcal{II} 15'01	0°45'25			711 Aug 10 j 04:25	0° \mathcal{B}	
minimum elong	706 Jun 10 j 02:16	21° \mathcal{II} 12'33	0°45'24	retrograde		711 Sep 11 j 15:02	6° \mathcal{B} 46'03	
	706 Jun 23 j 12:30	0° \mathcal{S}		min. Earth dist.		711 Oct 10 j 13:17	0° \mathcal{B} 59'34	0.48162 AU
max. Earth dist.	706 Jun 27 j 09:35	2° \mathcal{S} 31'24	2.62966 AU			711 Oct 13 j 08:01	30° $\mathcal{R}\mathcal{Y}$	
morning rise	706 Jul 28 j 15:23	22° \mathcal{S} 38'29		opposition		711 Oct 18 j 14:34	28° \mathcal{Y} 04'47	-1°-7'-31
	706 Aug 09 j 04:40	0° \mathcal{Q}		greatest brilliancy		711 Oct 18 j 02:31	28° \mathcal{Y} 15'43	-2.2m
	706 Sep 25 j 20:37	0° \mathcal{M}		asc. node		711 Nov 08 j 18:01	22° \mathcal{Y} 03'47	
	706 Nov 13 j 12:14	0° \mathcal{A}		direct		711 Nov 21 j 01:36	21° \mathcal{Y} 01'28	
	707 Jan 03 j 06:43	0° \mathcal{M}				712 Jan 01 j 06:58	0° \mathcal{B}	

	712 Mar 02 j 21:00	0°♄			717 Feb 23 j 01:03	0°♄		
	712 Apr 23 j 23:20	0°♅		morning rise	717 Mar 28 j 12:47	25°♄55'01		
	712 Jun 12 j 14:24	0°♆			717 Apr 02 j 21:33	0°♅		
	712 Jul 30 j 10:51	0°♇			717 May 13 j 07:55	0°♆		
evening set	712 Aug 15 j 08:53	10°♇15'09			717 Jun 25 j 00:39	0°♄		
max. Earth dist.	712 Sep 06 j 12:11	24°♇46'08	2.59727 AU	asc. node	717 Jun 30 j 15:21	3°♄48'20		
	712 Sep 14 j 08:45	0°♅			717 Aug 09 j 17:20	0°♅		
					717 Sep 29 j 04:04	0°♆		
conjunction	712 Oct 01 j 02:23	11°♅16'59	0°32'34		717 Dec 06 j 16:26	0°♇		
minimum elong	712 Oct 01 j 03:29	11°♅18'51	0°32'33	retrograde	717 Dec 31 j 22:46	3°♇31'07		
	712 Oct 28 j 05:09	0°♆			718 Jan 24 j 06:57	30°♄♄		
morning rise	712 Nov 18 j 06:52	14°♄55'30		opposition	718 Feb 09 j 12:00	24°♄10'40	4°28'00	
desc. node	712 Nov 26 j 11:33	20°♄49'04		greatest brilliancy	718 Feb 09 j 22:19	24°♄00'27	-1.2m	
	712 Dec 09 j 02:48	0°♄		min. Earth dist.	718 Feb 11 j 19:55	23°♄15'22	0.66920 AU	
	713 Jan 18 j 10:42	0°♅		direct	718 Mar 22 j 19:13	14°♄10'50		
	713 Feb 26 j 18:06	0°♆			718 May 20 j 13:38	0°♇		
	713 Apr 06 j 19:17	0°♄			718 Jul 14 j 20:16	0°♅		
	713 May 16 j 14:59	0°♅		desc. node	718 Jul 19 j 07:44	2°♅45'34		
	713 Jun 27 j 18:04	0°♆			718 Aug 29 j 18:15	0°♆		
	713 Aug 14 j 17:49	0°♄			718 Oct 10 j 11:29	0°♄		
asc. node	713 Sep 25 j 17:43	18°♄57'05			718 Nov 18 j 19:24	0°♅		
retrograde	713 Oct 23 j 11:31	23°♄39'34			718 Dec 26 j 23:56	0°♆		
min. Earth dist.	713 Nov 26 j 18:19	15°♄53'00	0.60125 AU	greatest brilliancy	718 Dec 26 j 13:30	29°♅39'23	1.2m	
greatest brilliancy	713 Dec 01 j 07:40	14°♄04'34	-1.6m	evening set	719 Jan 22 j 23:37	21°♄16'30		
opposition	713 Dec 02 j 02:34	13°♄45'48	2°44'30		719 Feb 03 j 02:56	0°♄		
direct	714 Jan 08 j 13:50	5°♄04'26			719 Mar 14 j 02:51	0°♅		
	714 Mar 28 j 07:45	0°♅						
	714 May 22 j 14:24	0°♆		conjunction	719 Mar 30 j 06:15	12°♅05'44	0°-30'-26	
	714 Jul 11 j 08:27	0°♇		minimum elong	719 Mar 30 j 08:28	12°♅09'50	0°30'25	
	714 Aug 26 j 19:06	0°♅			719 Apr 23 j 17:16	0°♆		
evening set	714 Sep 25 j 11:30	20°♅11'51		max. Earth dist.	719 May 14 j 19:02	15°♅00'26	2.48341 AU	
	714 Oct 09 j 11:16	0°♆		asc. node	719 May 18 j 15:13	17°♅42'04		
max. Earth dist.	714 Oct 10 j 07:56	0°♄36'35	2.48643 AU	morning rise	719 May 30 j 10:36	25°♅54'15		
desc. node	714 Oct 14 j 10:39	3°♄31'49			719 Jun 05 j 09:40	0°♄		
					719 Jul 20 j 09:25	0°♅		
conjunction	714 Nov 16 j 06:59	27°♄23'51	0°-20'-26		719 Sep 05 j 21:44	0°♆		
minimum elong	714 Nov 16 j 05:54	27°♄21'50	0°20'26		719 Oct 27 j 01:39	0°♇		
	714 Nov 19 j 19:08	0°♄			719 Dec 28 j 20:36	0°♅		
	714 Dec 29 j 08:55	0°♅		retrograde	720 Feb 08 j 11:45	8°♅33'47		
morning rise	715 Jan 13 j 11:45	11°♅42'26		opposition	720 Mar 17 j 06:21	0°♅08'07	3°08'01	
	715 Feb 05 j 21:58	0°♆			720 Mar 17 j 14:52	30°♄♄		
	715 Mar 16 j 06:13	0°♄		greatest brilliancy	720 Mar 18 j 05:28	29°♄46'03	-1.5m	
	715 Apr 24 j 07:15	0°♅		min. Earth dist.	720 Mar 23 j 08:30	27°♄49'06	0.60511 AU	
	715 Jun 04 j 00:01	0°♆		direct	720 Apr 27 j 04:34	20°♄17'22		
	715 Jul 17 j 13:06	0°♄		desc. node	720 Jun 05 j 07:22	28°♄35'58		
asc. node	715 Aug 13 j 16:42	17°♄16'07			720 Jun 08 j 20:47	0°♅		
	715 Sep 04 j 08:55	0°♅			720 Aug 03 j 23:21	0°♄		
	715 Nov 23 j 13:46	0°♆			720 Sep 17 j 02:46	0°♄		
retrograde	715 Nov 28 j 05:56	0°♄08'26			720 Oct 27 j 08:51	0°♅		
	715 Dec 02 j 20:18	30°♄♄			720 Dec 05 j 01:48	0°♆		
min. Earth dist.	716 Jan 05 j 20:50	20°♅54'21	0.66772 AU		721 Jan 12 j 15:44	0°♄		
opposition	716 Jan 07 j 10:16	20°♅16'49	4°20'29		721 Feb 21 j 03:41	0°♅		
greatest brilliancy	716 Jan 07 j 01:19	20°♅25'48	-1.3m	evening set	721 Mar 28 j 10:04	25°♅48'28		
direct	716 Feb 16 j 11:54	10°♅41'54			721 Apr 03 j 06:46	0°♆		
	716 Apr 23 j 22:20	0°♆		asc. node	721 Apr 04 j 13:26	0°♅54'37		
	716 Jun 18 j 23:53	0°♇			721 May 16 j 09:32	0°♄		
	716 Aug 06 j 05:12	0°♅						
desc. node	716 Aug 31 j 09:26	16°♅50'34		conjunction	721 May 23 j 15:07	4°♄53'55	0°28'50	
	716 Sep 19 j 07:47	0°♄		minimum elong	721 May 23 j 13:47	4°♄51'42	0°28'50	
	716 Oct 30 j 12:49	0°♄		max. Earth dist.	721 Jun 17 j 02:35	21°♄13'55	2.59813 AU	
evening set	716 Nov 15 j 09:50	11°♄59'38			721 Jun 30 j 11:11	0°♅		
	716 Dec 08 j 18:39	0°♅		morning rise	721 Jul 13 j 13:46	8°♅30'49		
max. Earth dist.	717 Jan 09 j 14:28	24°♅58'20	2.37209 AU		721 Aug 16 j 04:41	0°♆		
	717 Jan 15 j 23:16	0°♆			721 Oct 03 j 08:42	0°♇		
					721 Nov 22 j 12:01	0°♅		
conjunction	717 Jan 17 j 06:49	1°♄02'18	-1°-4'-25		722 Jan 16 j 22:36	0°♄		
minimum elong	717 Jan 17 j 05:58	1°♄00'39	1°04'26	retrograde	722 Mar 29 j 08:08	21°♄33'30		

desc. node	722 Apr 23 j 06:45	17° \mathbb{M} 44'41		evening set	727 Aug 01 j 15:56	26° Ω 22'23	
opposition	722 May 02 j 17:56	14° \mathbb{M} 42'19	0°-29'-53		727 Aug 07 j 07:55	0° \mathbb{M}	
greatest brilliancy	722 May 03 j 00:02	14° \mathbb{M} 37'07	-2.2m	max. Earth dist.	727 Aug 28 j 01:10	13° \mathbb{M} 23'56	2.62855 AU
min. Earth dist.	722 May 11 j 06:48	11° \mathbb{M} 48'12	0.48556 AU				
direct	722 Jun 09 j 14:04	6° \mathbb{M} 17'43		conjunction	727 Sep 16 j 14:46	26° \mathbb{M} 15'48	0°47'29
	722 Aug 16 j 05:01	0° \mathbb{M}		minimum elong	727 Sep 16 j 15:59	26° \mathbb{M} 17'49	0°47'29
	722 Oct 01 j 00:37	0° \mathbb{C}			727 Sep 22 j 05:38	0° \mathbb{C}	
	722 Nov 11 j 02:35	0° \approx		morning rise	727 Nov 01 j 21:30	27° \mathbb{C} 37'50	
	722 Dec 21 j 06:03	0° \mathbb{H}			727 Nov 05 j 07:28	0° \mathbb{M}	
	723 Jan 31 j 00:53	0° \mathbb{Y}		desc. node	727 Dec 14 j 03:38	27° \mathbb{M} 30'25	
asc. node	723 Feb 20 j 11:33	14° \mathbb{Y} 40'14			727 Dec 17 j 14:28	0° \mathbb{M}	
	723 Mar 14 j 06:47	0° \mathbb{C}			728 Jan 27 j 09:41	0° \mathbb{C}	
	723 Apr 27 j 07:16	0° \mathbb{II}			728 Mar 07 j 05:01	0° \approx	
evening set	723 May 16 j 21:34	12° \mathbb{II} 59'49			728 Apr 15 j 18:35	0° \mathbb{H}	
	723 Jun 11 j 22:33	0° \mathbb{C}			728 May 26 j 07:18	0° \mathbb{Y}	
					728 Jul 09 j 01:08	0° \mathbb{C}	
conjunction	723 Jul 05 j 02:51	14° \mathbb{C} 56'23	1°02'39		728 Sep 03 j 03:14	0° \mathbb{II}	
minimum elong	723 Jul 05 j 01:51	14° \mathbb{C} 54'46	1°02'38	retrograde	728 Oct 08 j 02:05	7° \mathbb{II} 25'24	
max. Earth dist.	723 Jul 12 j 13:08	19° \mathbb{C} 42'00	2.66251 AU	asc. node	728 Oct 12 j 09:14	7° \mathbb{II} 17'23	
	723 Jul 28 j 16:19	0° Ω		min. Earth dist.	728 Nov 09 j 09:00	0° \mathbb{II} 21'58	0.55937 AU
morning rise	723 Aug 20 j 01:23	14° Ω 14'13			728 Nov 10 j 07:52	30° \mathbb{R} \mathbb{C}	
	723 Sep 13 j 21:20	0° \mathbb{M}		greatest brilliancy	728 Nov 15 j 10:37	28° \mathbb{C} 00'26	-1.8m
	723 Oct 31 j 03:58	0° \mathbb{C}		opposition	728 Nov 16 j 01:18	27° \mathbb{C} 46'09	1°34'50
	723 Dec 17 j 13:51	0° \mathbb{M}		direct	728 Dec 22 j 02:54	19° \mathbb{C} 36'23	
	724 Feb 03 j 21:03	0° \mathbb{M}			729 Feb 05 j 22:22	0° \mathbb{II}	
desc. node	724 Mar 10 j 05:37	20° \mathbb{M} 53'35			729 Apr 08 j 15:46	0° \mathbb{C}	
	724 Mar 26 j 17:36	0° \mathbb{C}			729 May 30 j 20:26	0° Ω	
retrograde	724 Jun 09 j 19:35	25° \mathbb{C} 16'23			729 Jul 18 j 15:40	0° \mathbb{M}	
opposition	724 Jul 09 j 23:01	20° \mathbb{C} 17'50	-6°-27'-29		729 Sep 02 j 19:40	0° \mathbb{C}	
greatest brilliancy	724 Jul 10 j 15:10	20° \mathbb{C} 07'05	-2.8m	evening set	729 Sep 08 j 16:17	3° \mathbb{C} 55'44	
min. Earth dist.	724 Jul 12 j 07:42	19° \mathbb{C} 40'06	0.37839 AU	max. Earth dist.	729 Sep 25 j 11:37	15° \mathbb{C} 21'16	2.53446 AU
direct	724 Aug 09 j 12:32	15° \mathbb{C} 04'37			729 Oct 16 j 12:36	0° \mathbb{M}	
	724 Sep 30 j 04:33	0° \approx					
	724 Nov 20 j 09:42	0° \mathbb{H}		conjunction	729 Oct 27 j 20:40	8° \mathbb{M} 02'56	0°02'02
	725 Jan 05 j 01:45	0° \mathbb{Y}		minimum elong	729 Oct 27 j 20:48	8° \mathbb{M} 03'09	0°02'02
asc. node	725 Jan 07 j 11:24	1° \mathbb{Y} 35'50		behind sun begin	729 Oct 26 j 23:29	7° \mathbb{M} 25'06	
	725 Feb 19 j 07:16	0° \mathbb{C}		behind sun end	729 Oct 28 j 18:06	8° \mathbb{M} 41'15	
	725 Apr 06 j 06:45	0° \mathbb{II}		desc. node	729 Oct 31 j 02:27	10° \mathbb{M} 22'12	
	725 May 23 j 03:28	0° \mathbb{C}			729 Nov 27 j 01:04	0° \mathbb{M}	
evening set	725 Jun 25 j 07:35	21° \mathbb{C} 02'25		morning rise	729 Dec 20 j 02:26	17° \mathbb{M} 14'25	
	725 Jul 09 j 10:52	0° Ω			730 Jan 05 j 20:54	0° \mathbb{C}	
max. Earth dist.	725 Aug 04 j 01:18	16° Ω 16'23	2.67243 AU		730 Feb 13 j 15:53	0° \approx	
					730 Mar 24 j 04:57	0° \mathbb{H}	
conjunction	725 Aug 10 j 10:19	20° Ω 20'30	1°08'16		730 May 02 j 10:19	0° \mathbb{Y}	
minimum elong	725 Aug 10 j 10:42	20° Ω 21'07	1°08'16		730 Jun 12 j 10:16	0° \mathbb{C}	
	725 Aug 25 j 12:16	0° \mathbb{M}			730 Jul 26 j 19:47	0° \mathbb{II}	
morning rise	725 Sep 23 j 21:29	18° \mathbb{M} 59'37		asc. node	730 Aug 30 j 08:40	20° \mathbb{II} 39'08	
	725 Oct 10 j 17:25	0° \mathbb{C}			730 Sep 17 j 08:13	0° \mathbb{C}	
	725 Nov 24 j 19:00	0° \mathbb{M}		retrograde	730 Nov 14 j 17:32	16° \mathbb{C} 48'10	
	726 Jan 07 j 16:53	0° \mathbb{M}		min. Earth dist.	730 Dec 21 j 19:12	8° \mathbb{C} 04'53	0.64926 AU
desc. node	726 Jan 26 j 04:36	12° \mathbb{M} 50'18		opposition	730 Dec 24 j 20:55	6° \mathbb{C} 51'00	3°55'21
	726 Feb 19 j 16:18	0° \mathbb{C}		greatest brilliancy	730 Dec 24 j 05:55	7° \mathbb{C} 06'02	-1.4m
	726 Apr 03 j 05:35	0° \approx			731 Jan 13 j 16:00	30° \mathbb{R} \mathbb{II}	
	726 May 16 j 19:50	0° \mathbb{H}		direct	731 Feb 02 j 02:22	27° \mathbb{II} 33'06	
	726 Jul 06 j 07:53	0° \mathbb{Y}			731 Feb 23 j 01:23	0° \mathbb{C}	
retrograde	726 Aug 21 j 17:27	12° \mathbb{Y} 56'35			731 May 06 j 22:01	0° Ω	
min. Earth dist.	726 Sep 17 j 18:39	7° \mathbb{Y} 59'55	0.43100 AU		731 Jun 28 j 10:46	0° \mathbb{M}	
greatest brilliancy	726 Sep 24 j 08:32	5° \mathbb{Y} 50'20	-2.5m		731 Aug 14 j 18:19	0° \mathbb{C}	
opposition	726 Sep 25 j 14:42	5° \mathbb{Y} 25'21	-3°-26'-32	desc. node	731 Sep 18 j 01:38	23° \mathbb{C} 17'18	
	726 Oct 16 j 20:20	30° \mathbb{R} \mathbb{H}			731 Sep 27 j 15:04	0° \mathbb{M}	
direct	726 Oct 27 j 06:32	29° \mathbb{H} 16'15		evening set	731 Oct 25 j 07:00	19° \mathbb{M} 57'14	
	726 Nov 06 j 21:18	0° \mathbb{Y}			731 Nov 07 j 20:16	0° \mathbb{M}	
asc. node	726 Nov 25 j 11:13	4° \mathbb{Y} 15'13		max. Earth dist.	731 Nov 14 j 01:51	4° \mathbb{M} 40'29	2.40788 AU
	727 Jan 21 j 03:16	0° \mathbb{C}			731 Dec 17 j 04:25	0° \mathbb{C}	
	727 Mar 14 j 10:07	0° \mathbb{II}					
	727 May 03 j 03:49	0° \mathbb{C}		conjunction	731 Dec 22 j 06:59	3° \mathbb{C} 58'05	0°-53'-18
	727 Jun 20 j 20:05	0° Ω		minimum elong	731 Dec 22 j 04:34	3° \mathbb{C} 53'22	0°53'18

	732 Jan 24 j 11:36	0°♊		greatest brilliancy	737 Apr 13 j 10:29	25°♊39'41	-1.9m
morning rise	732 Feb 27 j 12:51	26°♊47'52		min. Earth dist.	737 Apr 20 j 19:04	23°♊00'36	0.53712 AU
	732 Mar 02 j 15:01	0°♋		desc. node	737 May 09 j 22:10	17°♊43'37	
	732 Apr 10 j 12:02	0°♌		direct	737 May 22 j 08:14	16°♊40'32	
	732 May 20 j 22:57	0°♍			737 Jul 10 j 17:01	0°♎	
	732 Jul 02 j 19:22	0°♎			737 Aug 30 j 22:45	0°♏	
asc. node	732 Jul 17 j 08:06	9°♎41'56			737 Oct 12 j 04:48	0°♐	
	732 Aug 18 j 04:24	0°♑			737 Nov 20 j 21:40	0°♑	
	732 Oct 10 j 13:32	0°♒			737 Dec 30 j 04:35	0°♋	
retrograde	732 Dec 18 j 06:32	20°♒46'28			738 Feb 08 j 07:11	0°♌	
opposition	733 Jan 27 j 05:00	11°♒11'06	4°34'28	asc. node	738 Mar 09 j 05:03	20°♌56'52	
greatest brilliancy	733 Jan 27 j 07:37	11°♒08'29	-1.2m		738 Mar 21 j 23:33	0°♍	
min. Earth dist.	733 Jan 28 j 00:14	10°♒51'56	0.67669 AU	evening set	738 Apr 29 j 02:14	26°♍18'54	
direct	733 Mar 09 j 04:56	1°♒17'44			738 May 04 j 13:06	0°♎	
	733 Jun 02 j 16:53	0°♏			738 Jun 18 j 21:10	0°♑	
	733 Jul 23 j 20:33	0°♐					
desc. node	733 Aug 05 j 00:58	7°♐50'13		conjunction	738 Jun 19 j 12:43	0°♑25'18	0°52'59
	733 Sep 06 j 19:29	0°♑		minimum elong	738 Jun 19 j 11:19	0°♑23'02	0°52'59
	733 Oct 18 j 05:47	0°♒		max. Earth dist.	738 Jul 03 j 03:29	9°♑14'49	2.64350 AU
	733 Nov 26 j 11:33	0°♓			738 Aug 04 j 12:46	0°♒	
evening set	733 Dec 25 j 18:55	23°♓01'00		morning rise	738 Aug 05 j 22:55	0°♒54'19	
	734 Jan 03 j 15:00	0°♊			738 Sep 20 j 23:34	0°♏	
	734 Feb 10 j 16:21	0°♋			738 Nov 08 j 00:54	0°♐	
					738 Dec 27 j 06:16	0°♑	
conjunction	734 Mar 03 j 10:37	16°♋08'06	0°-52'-28		739 Feb 18 j 04:41	0°♒	
minimum elong	734 Mar 03 j 13:39	16°♋13'57	0°52'28	desc. node	739 Mar 27 j 21:41	17°♒35'08	
	734 Mar 21 j 13:41	0°♌		retrograde	739 May 10 j 00:41	27°♒07'45	
max. Earth dist.	734 Apr 23 j 17:56	24°♌41'38	2.42970 AU	opposition	739 Jun 10 j 12:09	21°♒35'54	-4°-18'00
	734 May 01 j 01:12	0°♍		greatest brilliancy	739 Jun 11 j 19:59	21°♒12'21	-2.6m
morning rise	734 May 08 j 17:47	5°♍32'16		min. Earth dist.	739 Jun 17 j 00:29	19°♒40'55	0.40858 AU
asc. node	734 Jun 04 j 06:05	24°♍12'43		direct	739 Jul 14 j 01:40	15°♒09'45	
	734 Jun 12 j 15:47	0°♎			739 Sep 02 j 16:22	0°♓	
	734 Jul 27 j 18:34	0°♏			739 Oct 22 j 04:24	0°♑	
	734 Sep 13 j 23:27	0°♒			739 Dec 04 j 14:53	0°♋	
	734 Nov 06 j 20:38	0°♏			740 Jan 16 j 09:16	0°♌	
retrograde	735 Jan 23 j 16:02	24°♏36'07		asc. node	740 Jan 25 j 03:18	6°♌04'58	
opposition	735 Mar 03 j 07:18	15°♏45'31	3°51'02		740 Feb 29 j 00:21	0°♍	
greatest brilliancy	735 Mar 04 j 03:24	15°♏26'00	-1.4m		740 Apr 14 j 00:08	0°♎	
min. Earth dist.	735 Mar 07 j 22:58	13°♏57'14	0.63800 AU		740 May 30 j 06:30	0°♑	
direct	735 Apr 13 j 14:59	5°♏45'40		evening set	740 Jun 10 j 04:58	7°♑00'24	
desc. node	735 Jun 22 j 23:30	27°♏58'15			740 Jul 16 j 06:40	0°♒	
	735 Jun 26 j 19:35	0°♐		max. Earth dist.	740 Jul 26 j 00:45	6°♒12'26	2.67501 AU
	735 Aug 15 j 07:29	0°♑					
	735 Sep 27 j 02:15	0°♒		conjunction	740 Jul 27 j 04:05	6°♒55'56	1°09'17
	735 Nov 05 j 20:00	0°♓		minimum elong	740 Jul 27 j 03:56	6°♒55'41	1°09'16
	735 Dec 14 j 05:55	0°♊			740 Sep 01 j 07:48	0°♏	
	736 Jan 21 j 13:39	0°♋		morning rise	740 Sep 09 j 20:44	5°♏28'23	
	736 Feb 29 j 18:59	0°♌			740 Oct 17 j 20:19	0°♐	
evening set	736 Mar 04 j 21:59	3°♌05'28			740 Dec 02 j 14:16	0°♑	
	736 Apr 10 j 15:21	0°♍			741 Jan 16 j 15:51	0°♒	
asc. node	736 Apr 21 j 05:32	7°♍33'04		desc. node	741 Feb 11 j 20:35	17°♒33'43	
					741 Mar 02 j 10:01	0°♓	
conjunction	736 May 04 j 03:37	16°♍38'05	0°08'01		741 Apr 16 j 22:44	0°♊	
minimum elong	736 May 04 j 03:08	16°♍37'13	0°08'00		741 Jun 07 j 03:36	0°♋	
behind sun begin	736 May 03 j 06:17	16°♍00'52		retrograde	741 Jul 27 j 18:35	14°♋40'09	
behind sun end	736 May 04 j 23:58	17°♍13'32		min. Earth dist.	741 Aug 23 j 11:13	10°♋13'37	0.39031 AU
	736 May 23 j 12:15	0°♎		greatest brilliancy	741 Aug 27 j 18:43	8°♋58'49	-2.8m
max. Earth dist.	736 Jun 05 j 14:32	8°♎52'45	2.55845 AU	opposition	741 Aug 29 j 01:32	8°♋36'27	-5°-47'-55
morning rise	736 Jun 27 j 09:26	23°♎23'37		direct	741 Sep 27 j 22:57	3°♋21'09	
	736 Jul 07 j 11:10	0°♏		asc. node	741 Dec 12 j 02:35	29°♋12'22	
	736 Aug 23 j 08:27	0°♒			741 Dec 13 j 13:41	0°♌	
	736 Oct 11 j 06:45	0°♏			742 Feb 02 j 22:12	0°♍	
	736 Dec 02 j 19:50	0°♐			742 Mar 23 j 14:40	0°♎	
	737 Feb 10 j 15:46	0°♑			742 May 10 j 21:19	0°♑	
retrograde	737 Mar 07 j 20:01	3°♑27'32			742 Jun 27 j 21:30	0°♒	
	737 Mar 31 j 09:55	30°♑♎		evening set	742 Jul 18 j 04:57	12°♒48'51	
opposition	737 Apr 12 j 19:45	25°♑53'01	1°16'47		742 Aug 14 j 03:38	0°♏	

max. Earth dist.	742 Aug 18 j 09:31	2°♎43'53	2.65189 AU		747 Jul 11 j 22:55	0°♊	
				asc. node	747 Aug 03 j 23:06	14°♊58'52	
conjunction	742 Sep 01 j 21:00	12°♎06'08	0°58'36		747 Aug 28 j 12:28	0°♎	
minimum elong	742 Sep 01 j 22:02	12°♎07'50	0°58'36		747 Oct 27 j 21:06	0°♏	
	742 Sep 29 j 02:52	0°♎		retrograde	747 Dec 05 j 21:49	8°♏03'10	
morning rise	742 Oct 16 j 23:58	11°♎57'13			748 Jan 10 j 17:30	30°♎	
	742 Nov 12 j 11:57	0°♎		min. Earth dist.	748 Jan 14 j 08:24	28°♎33'31	0.67380 AU
	742 Dec 25 j 07:01	0°♎		opposition	748 Jan 15 j 01:37	28°♎16'17	4°29'13
desc. node	742 Dec 30 j 19:22	3°♎56'33		greatest brilliancy	748 Jan 14 j 20:37	28°♎21'18	-1.2m
	743 Feb 04 j 17:27	0°♎		direct	748 Feb 24 j 12:58	18°♎33'37	
	743 Mar 17 j 06:05	0°♎			748 Apr 13 j 19:28	0°♏	
	743 Apr 26 j 16:10	0°♎			748 Jun 12 j 23:08	0°♎	
	743 Jun 07 j 14:11	0°♎			748 Aug 01 j 01:20	0°♎	
	743 Jul 25 j 10:41	0°♎		desc. node	748 Aug 21 j 16:17	13°♎37'30	
retrograde	743 Sep 22 j 03:20	18°♎57'23			748 Sep 14 j 10:47	0°♎	
min. Earth dist.	743 Oct 22 j 06:55	12°♎42'33	0.51042 AU		748 Oct 25 j 18:02	0°♎	
opposition	743 Oct 30 j 00:13	9°♎49'18	0°00'-13	evening set	748 Nov 29 j 04:00	26°♎14'42	
greatest brilliancy	742 Dec 11 j 21:12	20°♎29'14	1.9m		748 Dec 04 j 00:01	0°♎	
asc. node	743 Oct 30 j 02:02	9°♎47'36			749 Jan 11 j 04:17	0°♎	
direct	743 Dec 03 j 10:24	2°♎19'47					
	744 Feb 23 j 22:32	0°♊		conjunction	749 Feb 02 j 10:52	17°♎35'43	-1°-4'-26
	744 Apr 18 j 05:06	0°♎		minimum elong	749 Feb 02 j 11:48	17°♎37'33	1°04'26
	744 Jun 07 j 14:15	0°♏			749 Feb 18 j 05:40	0°♎	
	744 Jul 25 j 18:07	0°♎		max. Earth dist.	749 Mar 13 j 18:03	18°♎16'40	2.38083 AU
evening set	744 Aug 23 j 23:01	18°♎52'23			749 Mar 29 j 01:44	0°♎	
	744 Sep 09 j 18:27	0°♎		morning rise	749 Apr 13 j 09:01	11°♎31'38	
max. Earth dist.	744 Sep 12 j 21:47	2°♎06'04	2.57686 AU		749 May 08 j 11:25	0°♎	
				asc. node	749 Jun 20 j 23:19	0°♊36'58	
conjunction	744 Oct 10 j 08:49	20°♎47'48	0°22'20		749 Jun 20 j 01:41	0°♊	
minimum elong	744 Oct 10 j 09:40	20°♎49'17	0°22'19		749 Aug 04 j 10:36	0°♎	
	744 Oct 23 j 13:51	0°♎			749 Sep 22 j 18:27	0°♏	
desc. node	744 Nov 16 j 19:23	17°♎14'22			749 Nov 21 j 08:02	0°♎	
morning rise	744 Nov 29 j 00:51	26°♎06'36		retrograde	750 Jan 08 j 23:48	11°♎22'51	
	744 Dec 04 j 08:22	0°♎		opposition	750 Feb 17 j 06:42	2°♎11'53	4°18'15
	745 Jan 13 j 11:37	0°♎		greatest brilliancy	750 Feb 17 j 20:56	1°♎57'54	-1.3m
	745 Feb 21 j 13:59	0°♎		min. Earth dist.	750 Feb 20 j 10:47	0°♎57'10	0.66092 AU
	745 Apr 01 j 09:46	0°♎			750 Feb 22 j 21:37	30°♎	
	745 May 10 j 22:20	0°♎		direct	750 Mar 30 j 16:17	22°♏10'22	
	745 Jun 21 j 11:37	0°♎			750 May 08 j 15:47	0°♎	
	745 Aug 06 j 13:12	0°♊			750 Jul 08 j 10:47	0°♎	
asc. node	745 Sep 15 j 23:56	21°♊17'21		desc. node	750 Jul 09 j 15:18	0°♎42'14	
	745 Oct 11 j 00:13	0°♎			750 Aug 24 j 08:07	0°♎	
retrograde	745 Oct 31 j 19:04	2°♎42'09			750 Oct 05 j 09:17	0°♎	
	745 Nov 20 j 11:29	30°♎			750 Nov 13 j 20:10	0°♎	
min. Earth dist.	745 Dec 06 j 03:15	24°♊33'59	0.62113 AU		750 Dec 22 j 02:09	0°♎	
opposition	745 Dec 10 j 16:30	22°♊45'03	3°15'36		751 Jan 29 j 06:14	0°♎	
greatest brilliancy	745 Dec 09 j 21:51	23°♊03'40	-1.5m	evening set	751 Feb 07 j 16:20	7°♎19'38	
direct	746 Jan 17 j 20:49	13°♊48'59			751 Mar 09 j 07:12	0°♎	
	746 Mar 19 j 05:20	0°♎					
	746 May 16 j 17:12	0°♏		conjunction	751 Apr 13 j 01:45	25°♎45'00	0°-16'-11
	746 Jul 06 j 07:12	0°♎		minimum elong	751 Apr 13 j 02:54	25°♎47'05	0°16'11
	746 Aug 22 j 01:09	0°♎			751 Apr 18 j 22:49	0°♎	
desc. node	746 Oct 04 j 18:08	29°♎57'48		asc. node	751 May 08 j 21:53	14°♎12'54	
	746 Oct 04 j 19:23	0°♎		max. Earth dist.	751 May 23 j 23:03	24°♎42'23	2.51186 AU
evening set	746 Oct 05 j 16:04	0°♎36'34			751 May 31 j 15:41	0°♊	
max. Earth dist.	746 Oct 20 j 11:04	11°♎10'56	2.45860 AU	morning rise	751 Jun 10 j 12:56	6°♊43'53	
	746 Nov 15 j 02:53	0°♎			751 Jul 15 j 13:44	0°♎	
					751 Aug 31 j 18:15	0°♏	
conjunction	746 Nov 28 j 08:39	9°♎55'54	0°-33'-18		751 Oct 20 j 20:41	0°♎	
minimum elong	746 Nov 28 j 06:51	9°♎52'30	0°33'18		751 Dec 16 j 23:04	0°♎	
	746 Dec 24 j 14:51	0°♎		retrograde	752 Feb 18 j 04:08	17°♎28'59	
morning rise	747 Jan 28 j 19:41	27°♎26'52		opposition	752 Mar 26 j 09:40	9°♎19'24	2°33'53
	747 Feb 01 j 01:43	0°♎		greatest brilliancy	752 Mar 27 j 08:01	8°♎58'25	-1.6m
greatest brilliancy	747 Feb 21 j 16:40	16°♎12'01	1.2m	min. Earth dist.	752 Apr 02 j 05:50	6°♎45'42	0.58326 AU
	747 Mar 11 j 07:43	0°♎			752 Apr 28 j 14:11	30°♎	
	747 Apr 19 j 06:10	0°♎		direct	752 May 05 j 23:37	29°♎38'12	
	747 May 29 j 19:06	0°♎			752 May 13 j 12:49	0°♎	

desc. node	752 May 26 j 14:26	2°♄12'56		conjunction	757 Aug 18 j 12:58	28°♂27'31	1°05'50
	752 Jul 27 j 08:49	0°♌		minimum elong	757 Aug 18 j 13:39	28°♂28'35	1°05'49
	752 Sep 11 j 00:50	0°♊			757 Aug 20 j 22:35	0°♎	
	752 Oct 21 j 19:31	0°♈		morning rise	757 Oct 02 j 02:07	27°♎22'54	
	752 Nov 29 j 18:56	0°♍			757 Oct 06 j 01:33	0°♊	
	753 Jan 07 j 13:18	0°♏			757 Nov 19 j 20:55	0°♌	
	753 Feb 16 j 04:48	0°♐			758 Jan 02 j 08:21	0°♊	
asc. node	753 Mar 25 j 20:21	27°♑25'33		desc. node	758 Jan 16 j 12:14	9°♊57'32	
	753 Mar 29 j 11:09	0°♏			758 Feb 13 j 16:14	0°♈	
evening set	753 Apr 09 j 12:21	7°♏48'16			758 Mar 27 j 07:26	0°♍	
	753 May 11 j 16:25	0°♐			758 May 08 j 06:38	0°♏	
					758 Jun 22 j 12:10	0°♑	
conjunction	753 Jun 02 j 19:42	14°♐51'48	0°38'58	retrograde	758 Sep 02 j 23:19	27°♑23'02	
minimum elong	753 Jun 02 j 18:12	14°♐49'19	0°38'57	min. Earth dist.	758 Oct 01 j 00:10	21°♑59'40	0.45834 AU
max. Earth dist.	753 Jun 23 j 06:45	28°♐21'07	2.61657 AU	greatest brilliancy	758 Oct 08 j 06:15	19°♑27'53	-2.4m
	753 Jun 25 j 19:19	0°♍		opposition	758 Oct 09 j 03:13	19°♑09'31	-2°-4'-20
morning rise	753 Jul 22 j 07:38	17°♍09'07		direct	758 Nov 10 j 18:22	12°♑29'38	
	753 Aug 11 j 10:59	0°♏		asc. node	758 Nov 15 j 17:02	12°♑39'17	
	753 Sep 28 j 07:07	0°♎			759 Jan 10 j 12:45	0°♏	
	753 Nov 16 j 11:46	0°♊			759 Mar 07 j 19:59	0°♐	
	754 Jan 07 j 19:01	0°♌			759 Apr 27 j 18:54	0°♍	
	754 Mar 17 j 13:34	0°♊			759 Jun 15 j 23:35	0°♏	
retrograde	754 Apr 12 j 06:06	3°♊37'20			759 Aug 02 j 16:45	0°♎	
desc. node	754 Apr 13 j 12:50	3°♊36'44		evening set	759 Aug 10 j 00:48	4°♎42'29	
	754 May 06 j 13:43	30°♌		max. Earth dist.	759 Sep 02 j 23:06	20°♎16'35	2.61227 AU
opposition	754 May 15 j 13:54	27°♌13'55	-1°-46'-7		759 Sep 17 j 15:31	0°♊	
greatest brilliancy	754 May 16 j 09:33	26°♌57'52	-2.3m				
min. Earth dist.	754 May 23 j 21:33	24°♌31'15	0.45642 AU	conjunction	759 Sep 25 j 08:02	5°♊08'53	0°39'18
direct	754 Jun 21 j 03:21	19°♌26'04		minimum elong	759 Sep 25 j 09:13	5°♊10'53	0°39'17
	754 Aug 02 j 02:04	0°♊			759 Oct 31 j 15:11	0°♌	
	754 Sep 22 j 18:36	0°♈		morning rise	759 Nov 11 j 13:31	7°♌39'54	
	754 Nov 04 j 08:48	0°♍		desc. node	759 Dec 04 j 10:48	23°♌59'35	
	754 Dec 15 j 06:57	0°♏			759 Dec 12 j 17:54	0°♊	
	755 Jan 25 j 13:58	0°♑			760 Jan 22 j 07:17	0°♈	
asc. node	755 Feb 10 j 19:51	11°♑33'59			760 Mar 01 j 20:01	0°♍	
	755 Mar 09 j 04:45	0°♏			760 Apr 10 j 02:04	0°♏	
	755 Apr 22 j 11:29	0°♐			760 May 20 j 03:06	0°♑	
evening set	755 May 26 j 09:06	22°♐16'57			760 Jul 01 j 17:39	0°♏	
	755 Jun 07 j 06:51	0°♍			760 Aug 20 j 16:26	0°♐	
				asc. node	760 Oct 02 j 16:39	15°♐58'41	
conjunction	755 Jul 13 j 15:21	23°♍20'14	1°06'16	retrograde	760 Oct 17 j 00:53	17°♐21'05	
minimum elong	755 Jul 13 j 14:39	23°♍19'07	1°06'16	min. Earth dist.	760 Nov 19 j 10:35	9°♐53'32	0.58342 AU
max. Earth dist.	755 Jul 17 j 21:43	26°♍03'37	2.66929 AU	opposition	760 Nov 25 j 10:03	7°♐32'25	2°18'04
	755 Jul 24 j 02:01	0°♏		greatest brilliancy	760 Nov 24 j 15:51	7°♐50'19	-1.7m
morning rise	755 Aug 28 j 00:00	22°♏13'30			760 Dec 20 j 10:17	30°♌	
	755 Sep 09 j 05:05	0°♎		direct	761 Jan 01 j 07:37	29°♏04'18	
	755 Oct 26 j 04:12	0°♊			761 Jan 13 j 18:18	0°♐	
	755 Dec 11 j 20:59	0°♌			761 Apr 01 j 13:59	0°♍	
	756 Jan 27 j 16:37	0°♊			761 May 25 j 09:56	0°♏	
desc. node	756 Feb 29 j 13:06	20°♊40'19			761 Jul 13 j 18:41	0°♎	
	756 Mar 15 j 18:36	0°♈			761 Aug 29 j 03:43	0°♊	
	756 May 09 j 08:50	0°♍		evening set	761 Sep 18 j 01:58	13°♊27'28	
retrograde	756 Jun 28 j 02:01	13°♍18'15		max. Earth dist.	761 Oct 03 j 11:19	24°♊05'30	2.50853 AU
opposition	756 Jul 28 j 09:47	8°♍14'38	-6°-53'-39		761 Oct 11 j 21:21	0°♌	
greatest brilliancy	756 Jul 28 j 06:49	8°♍16'36	-2.9m	desc. node	761 Oct 21 j 09:50	6°♌45'22	
min. Earth dist.	756 Jul 27 j 16:24	8°♍26'12	0.37368 AU				
direct	756 Aug 27 j 03:56	3°♍18'47		conjunction	761 Nov 07 j 14:09	19°♌09'11	0°-10'-43
	756 Nov 09 j 13:36	0°♏		minimum elong	761 Nov 07 j 13:36	19°♌08'11	0°10'44
asc. node	756 Dec 28 j 18:18	0°♑03'16		behind sun begin	761 Nov 06 j 20:33	18°♌37'09	
	756 Dec 28 j 16:15	0°♑		behind sun end	761 Nov 08 j 06:38	19°♌39'14	
	757 Feb 13 j 07:30	0°♏			761 Nov 22 j 08:19	0°♊	
	757 Apr 01 j 00:43	0°♐			762 Jan 01 j 01:19	0°♈	
	757 May 18 j 07:24	0°♍		morning rise	762 Jan 02 j 09:25	1°♈01'39	
evening set	757 Jul 03 j 17:17	29°♍18'08			762 Feb 08 j 17:10	0°♍	
	757 Jul 04 j 19:46	0°♏			762 Mar 19 j 03:20	0°♏	
max. Earth dist.	757 Aug 09 j 08:03	22°♏33'48	2.66751 AU		762 Apr 27 j 05:17	0°♑	
					762 Jun 06 j 23:25	0°♏	

	762 Jul 20 j 17:45	0°♊			767 Dec 09 j 02:51	0°≈	
asc. node	762 Aug 20 j 16:12	19°♊17'32			768 Jan 16 j 13:34	0°♋	
	762 Sep 08 j 14:26	0°♌			768 Feb 24 j 21:35	0°♍	
retrograde	762 Nov 22 j 12:23	24°♌59'03		evening set	768 Mar 18 j 13:45	16°♍46'47	
min. Earth dist.	762 Dec 30 j 11:33	15°♌58'18	0.66067 AU		768 Apr 05 j 20:25	0°♎	
opposition	763 Jan 01 j 17:13	15°♌04'32	4°11'44	asc. node	768 Apr 11 j 12:45	4°♎03'05	
greatest brilliancy	763 Jan 01 j 05:20	15°♌16'26	-1.3m				
direct	763 Feb 10 j 10:50	5°♌36'41		conjunction	768 May 15 j 11:45	27°♎44'12	0°20'29
	763 Apr 29 j 11:38	0°♏		minimum elong	768 May 15 j 10:41	27°♎42'23	0°20'27
	763 Jun 22 j 22:12	0°♐			768 May 18 j 19:14	0°♐	
	763 Aug 09 j 19:23	0°♑		max. Earth dist.	768 Jun 12 j 10:44	16°♐36'07	2.58137 AU
desc. node	763 Sep 08 j 08:43	19°♑52'54			768 Jul 02 j 18:18	0°♒	
	763 Sep 22 j 20:48	0°♓		morning rise	768 Jul 06 j 18:50	2°♒37'26	
	763 Nov 03 j 03:12	0°♈			768 Aug 18 j 12:09	0°♏	
evening set	763 Nov 06 j 10:16	2°♈27'59			768 Oct 05 j 22:29	0°♐	
max. Earth dist.	763 Dec 07 j 03:05	25°♈52'37	2.38415 AU		768 Nov 25 j 21:49	0°♑	
	763 Dec 12 j 10:43	0°♉			769 Jan 23 j 20:08	0°♓	
				retrograde	769 Mar 19 j 13:44	13°♓50'32	
conjunction	764 Jan 06 j 02:48	19°♉17'55	-1°-1'-7	opposition	769 Apr 23 j 17:31	6°♓38'53	0°19'38
minimum elong	764 Jan 06 j 00:56	19°♉14'17	1°01'08	greatest brilliancy	769 Apr 21 j 00:02	7°♓35'41	-2.0m
	764 Jan 19 j 16:38	0°♊		desc. node	769 Apr 30 j 06:04	4°♓21'11	
	764 Feb 26 j 18:49	0°♋		min. Earth dist.	769 May 02 j 03:01	3°♓42'26	0.50909 AU
morning rise	764 Mar 15 j 13:40	13°♋51'18			769 May 14 j 13:50	30°♒♑	
	764 Apr 05 j 14:36	0°♌		direct	769 Jun 01 j 10:32	27°♑49'46	
	764 May 15 j 23:48	0°♍			769 Jun 19 j 17:04	0°♓	
	764 Jun 27 j 16:14	0°♎			769 Aug 22 j 16:28	0°♈	
asc. node	764 Jul 07 j 14:44	6°♎42'35			769 Oct 05 j 14:12	0°♉	
	764 Aug 12 j 12:48	0°♌			769 Nov 14 j 22:59	0°≈	
	764 Oct 02 j 20:07	0°♏			769 Dec 24 j 15:42	0°♋	
retrograde	764 Dec 26 j 01:24	28°♏32'44			770 Feb 03 j 01:39	0°♌	
opposition	765 Feb 03 j 19:43	19°♏05'11	4°32'02	asc. node	770 Feb 27 j 10:52	17°♌35'59	
greatest brilliancy	765 Feb 04 j 02:39	18°♏58'18	-1.2m		770 Mar 16 j 23:55	0°♎	
min. Earth dist.	765 Feb 05 j 11:25	18°♏25'49	0.67383 AU		770 Apr 29 j 18:13	0°♐	
direct	765 Mar 17 j 00:52	9°♏07'43		evening set	770 May 09 j 10:53	6°♐29'08	
	765 May 25 j 18:32	0°♐			770 Jun 14 j 05:14	0°♑	
	765 Jul 18 j 02:26	0°♑					
desc. node	765 Jul 26 j 07:02	5°♑08'47		conjunction	770 Jun 28 j 13:35	9°♑17'18	0°59'07
	765 Sep 01 j 15:26	0°♓		minimum elong	770 Jun 28 j 12:24	9°♑15'22	0°59'07
	765 Oct 13 j 06:58	0°♈		max. Earth dist.	770 Jul 08 j 16:48	15°♑48'34	2.65512 AU
	765 Nov 21 j 14:40	0°♉			770 Jul 30 j 21:18	0°♏	
	765 Dec 29 j 18:56	0°≈		morning rise	770 Aug 14 j 02:08	9°♏02'02	
evening set	766 Jan 10 j 14:16	9°≈19'38			770 Sep 16 j 04:27	0°♐	
	766 Feb 05 j 20:54	0°♋			770 Nov 02 j 18:28	0°♑	
	766 Mar 16 j 18:44	0°♌			770 Dec 20 j 20:54	0°♓	
					771 Feb 08 j 17:51	0°♈	
conjunction	766 Mar 18 j 21:40	1°♌36'23	0°-40'-40	desc. node	771 Mar 18 j 04:41	20°♈34'18	
minimum elong	766 Mar 19 j 00:31	1°♌41'46	0°40'39		771 Apr 07 j 01:25	0°♉	
	766 Apr 26 j 06:32	0°♍		retrograde	771 May 27 j 11:46	12°♉47'55	
max. Earth dist.	766 May 06 j 18:21	7°♍32'22	2.45954 AU	opposition	771 Jun 27 j 02:15	7°♉39'11	-5°-39'-32
morning rise	766 May 21 j 09:49	17°♍54'04		greatest brilliancy	771 Jun 28 j 05:24	7°♉20'23	-2.8m
asc. node	766 May 25 j 14:09	20°♍49'26		min. Earth dist.	771 Jul 01 j 15:22	6°♉23'56	0.38893 AU
	766 Jun 07 j 20:37	0°♎		direct	771 Jul 28 j 20:32	1°♉57'44	
	766 Jul 22 j 19:50	0°♌			771 Oct 11 j 13:26	0°≈	
	766 Sep 08 j 12:42	0°♏			771 Nov 27 j 00:22	0°♋	
	766 Oct 30 j 13:19	0°♐			772 Jan 10 j 02:38	0°♌	
	767 Jan 09 j 09:52	0°♑		asc. node	772 Jan 15 j 10:22	3°♌37'34	
retrograde	767 Feb 01 j 12:14	2°♑56'01			772 Feb 23 j 11:43	0°♎	
	767 Feb 23 j 00:13	30°♒♐			772 Apr 08 j 22:50	0°♐	
opposition	767 Mar 11 j 17:15	24°♒18'29	3°27'58		772 May 25 j 12:05	0°♑	
greatest brilliancy	767 Mar 12 j 15:25	23°♒57'12	-1.5m	evening set	772 Jun 18 j 22:44	15°♑34'17	
min. Earth dist.	767 Mar 17 j 04:45	22°♒12'20	0.62097 AU		772 Jul 11 j 15:50	0°♏	
direct	767 Apr 21 j 21:18	14°♒22'34		max. Earth dist.	772 Jul 31 j 07:43	12°♒30'01	2.67472 AU
desc. node	767 Jun 13 j 06:28	28°♒06'16					
	767 Jun 17 j 08:35	0°♑		conjunction	772 Aug 04 j 08:55	15°♒04'49	1°09'09
	767 Aug 08 j 23:12	0°♓		minimum elong	772 Aug 04 j 09:05	15°♒05'06	1°09'09
	767 Sep 21 j 12:14	0°♈			772 Aug 27 j 17:18	0°♐	
	767 Oct 31 j 13:08	0°♉		morning rise	772 Sep 17 j 21:00	13°♐37'00	

	772 Oct 13 j 01:56	0°♄			777 Sep 23 j 18:55	0°♄	
	772 Nov 27 j 10:52	0°♌		retrograde	777 Nov 08 j 20:45	11°♄20'50	
	773 Jan 10 j 20:26	0°♊		min. Earth dist.	777 Dec 15 j 04:35	2°♄52'45	0.63785 AU
desc. node	773 Feb 02 j 03:46	15°♊16'47		opposition	777 Dec 18 j 22:21	1°♄23'00	3°40'50
	773 Feb 23 j 12:29	0°♈		greatest brilliancy	777 Dec 18 j 05:17	1°♄40'04	-1.4m
	773 Apr 08 j 02:41	0°♍			777 Dec 22 j 10:05	30°♌II	
	773 May 23 j 17:25	0°♋		direct	778 Jan 26 j 17:28	22°♌14'06	
	773 Jul 27 j 11:14	0°♐			778 Mar 07 j 01:51	0°♄	
retrograde	773 Aug 11 j 10:45	1°♐33'17			778 May 10 j 10:28	0°♌	
	773 Aug 26 j 04:11	30°♌♋			778 Jul 01 j 02:53	0°♍	
min. Earth dist.	773 Sep 07 j 01:01	26°♋53'59	0.41073 AU		778 Aug 17 j 05:41	0°♄	
greatest brilliancy	773 Sep 12 j 18:52	25°♋06'57	-2.6m	desc. node	778 Sep 25 j 00:26	26°♄25'08	
opposition	773 Sep 14 j 04:14	24°♋40'48	-4°-30'-51		778 Sep 30 j 02:34	0°♌	
direct	773 Oct 15 j 00:18	18°♋57'11		evening set	778 Oct 16 j 12:58	11°♌44'23	
	773 Nov 29 j 09:02	0°♐		max. Earth dist.	778 Nov 01 j 20:16	23°♌38'49	2.43003 AU
asc. node	773 Dec 02 j 10:16	1°♐18'31			778 Nov 10 j 09:53	0°♊	
	774 Jan 26 j 08:03	0°♉					
	774 Mar 17 j 18:15	0°♌		conjunction	778 Dec 11 j 11:59	23°♊33'24	0°-45'-23
	774 May 05 j 18:48	0°♄		minimum elong	778 Dec 11 j 09:39	23°♊28'56	0°45'24
	774 Jun 23 j 03:35	0°♌			778 Dec 19 j 20:27	0°♈	
evening set	774 Jul 26 j 11:54	21°♌01'10			779 Jan 27 j 05:29	0°♍	
	774 Aug 09 j 13:23	0°♍		morning rise	779 Feb 14 j 07:41	14°♍14'13	
max. Earth dist.	774 Aug 23 j 23:51	9°♍18'36	2.64003 AU		779 Mar 06 j 09:53	0°♋	
					779 Apr 14 j 06:50	0°♐	
conjunction	774 Sep 10 j 05:58	20°♍34'05	0°52'36		779 May 24 j 17:10	0°♉	
minimum elong	774 Sep 10 j 07:08	20°♍36'00	0°52'36		779 Jul 06 j 14:39	0°♌	
	774 Sep 24 j 12:32	0°♄		asc. node	779 Jul 25 j 07:22	12°♌23'12	
morning rise	774 Oct 25 j 22:06	21°♄09'55			779 Aug 22 j 07:18	0°♄	
	774 Nov 07 j 18:24	0°♌			779 Oct 16 j 12:43	0°♌	
	774 Dec 20 j 07:22	0°♊		retrograde	779 Dec 13 j 13:09	15°♌49'50	
desc. node	774 Dec 21 j 02:54	0°♊35'05		opposition	780 Jan 22 j 14:59	6°♌08'57	4°33'40
	775 Jan 30 j 09:35	0°♈		greatest brilliancy	780 Jan 22 j 14:10	6°♌09'45	-1.2m
	775 Mar 11 j 12:06	0°♍		min. Earth dist.	780 Jan 22 j 18:01	6°♌05'55	0.67670 AU
	775 Apr 20 j 09:24	0°♋			780 Feb 08 j 10:56	30°♌♄	
	775 May 31 j 08:41	0°♐		direct	780 Mar 03 j 10:22	26°♄19'50	
	775 Jul 15 j 06:00	0°♉			780 Mar 29 j 11:39	0°♌	
	775 Sep 26 j 11:55	0°♌			780 Jun 06 j 11:46	0°♍	
retrograde	775 Oct 02 j 00:40	0°♌13'06			780 Jul 26 j 18:03	0°♄	
	775 Oct 07 j 11:58	30°♌♉		desc. node	780 Aug 11 j 23:53	10°♄34'01	
asc. node	775 Oct 20 j 08:36	27°♉46'57			780 Sep 09 j 12:25	0°♌	
min. Earth dist.	775 Nov 02 j 08:37	23°♉31'18	0.53814 AU		780 Oct 20 j 22:31	0°♊	
opposition	775 Nov 09 j 13:55	20°♉45'27	0°58'03		780 Nov 29 j 05:01	0°♈	
greatest brilliancy	775 Nov 09 j 03:44	20°♉55'13	-1.9m	evening set	780 Dec 13 j 21:05	11°♈28'26	
direct	775 Dec 14 j 23:09	12°♉52'35			781 Jan 06 j 08:49	0°♍	
	776 Feb 14 j 07:52	0°♌			781 Feb 13 j 09:45	0°♋	
	776 Apr 12 j 02:08	0°♄					
	776 Jun 02 j 10:48	0°♌		conjunction	781 Feb 18 j 22:33	4°♋19'39	0°-59'-19
	776 Jul 20 j 23:57	0°♍		minimum elong	781 Feb 19 j 01:02	4°♋24'29	0°59'19
evening set	776 Sep 01 j 20:04	27°♍47'57			781 Mar 24 j 05:39	0°♐	
	776 Sep 05 j 03:23	0°♄		max. Earth dist.	781 Apr 10 j 04:41	12°♐46'05	2.40611 AU
max. Earth dist.	776 Sep 19 j 21:08	9°♄55'20	2.55429 AU	morning rise	781 Apr 28 j 05:05	26°♐03'42	
	776 Oct 18 j 22:33	0°♌			781 May 03 j 15:00	0°♉	
				asc. node	781 Jun 11 j 05:13	27°♉17'14	
conjunction	776 Oct 20 j 02:58	0°♌49'58	0°10'59		781 Jun 15 j 03:57	0°♌	
minimum elong	776 Oct 20 j 03:26	0°♌50'47	0°10'58		781 Jul 30 j 07:14	0°♄	
behind sun begin	776 Oct 19 j 11:47	0°♌23'16			781 Sep 16 j 20:05	0°♌	
behind sun end	776 Oct 20 j 19:06	1°♌18'20			781 Nov 11 j 08:39	0°♍	
desc. node	776 Nov 07 j 01:42	13°♌35'50		retrograde	782 Jan 17 j 06:06	19°♍21'10	
	776 Nov 29 j 14:45	0°♊		opposition	782 Feb 25 j 05:34	10°♍20'56	4°03'55
morning rise	776 Dec 10 j 14:23	8°♊07'56		greatest brilliancy	782 Feb 25 j 23:15	10°♍03'40	-1.3m
	777 Jan 08 j 14:36	0°♈		min. Earth dist.	782 Mar 01 j 05:44	8°♍47'11	0.64957 AU
	777 Feb 16 j 13:01	0°♍		direct	782 Apr 07 j 15:36	0°♍19'34	
	777 Mar 27 j 04:46	0°♋		desc. node	782 Jun 29 j 22:48	29°♍12'29	
	777 May 05 j 12:11	0°♐			782 Jul 01 j 08:48	0°♄	
	777 Jun 15 j 15:25	0°♉			782 Aug 18 j 16:14	0°♌	
	777 Jul 30 j 12:17	0°♌			782 Sep 30 j 04:06	0°♊	
asc. node	777 Sep 06 j 07:37	21°♌44'05			782 Nov 08 j 19:25	0°♈	

	782 Dec 17 j 03:29	0°♊			787 Oct 21 j 06:01	0°♎	
	783 Jan 24 j 09:00	0°♋			787 Dec 06 j 09:42	0°♌	
evening set	783 Feb 22 j 19:17	22°♋40'36			788 Jan 21 j 03:52	0°♏	
	783 Mar 04 j 11:21	0°♌		desc. node	788 Feb 19 j 19:43	19°♏25'27	
	783 Apr 14 j 04:06	0°♍			788 Mar 07 j 02:29	0°♐	
					788 Apr 24 j 02:20	0°♑	
conjunction	783 Apr 25 j 23:06	8°♍25'39	0°-2'-2		788 Jun 30 j 03:57	0°♋	
minimum elong	783 Apr 25 j 23:14	8°♍25'55	0°02'03	retrograde	788 Jul 15 j 07:35	1°♋31'21	
behind sun begin	783 Apr 24 j 22:46	7°♍42'30			788 Jul 30 j 14:35	30°♌	
behind sun end	783 Apr 26 j 23:42	9°♍09'17		min. Earth dist.	788 Aug 11 j 20:20	27°♌02'29	0.37910 AU
asc. node	783 Apr 29 j 04:12	10°♍42'14		opposition	788 Aug 15 j 12:56	26°♌01'33	-6°-31'-57
	783 May 26 j 21:47	0°♎		greatest brilliancy	788 Aug 14 j 15:37	26°♌16'13	-2.8m
max. Earth dist.	783 Jun 01 j 02:46	3°♎33'21	2.53843 AU	direct	788 Sep 14 j 01:21	21°♌01'54	
morning rise	783 Jun 20 j 23:23	16°♎55'54			788 Oct 23 j 17:21	0°♋	
	783 Jul 10 j 18:42	0°♏		asc. node	788 Dec 19 j 01:27	29°♋22'14	
	783 Aug 26 j 17:36	0°♐			788 Dec 20 j 02:55	0°♌	
	783 Oct 15 j 01:17	0°♑			789 Feb 06 j 21:40	0°♍	
	783 Dec 08 j 00:52	0°♒			789 Mar 26 j 14:08	0°♎	
retrograde	784 Feb 28 j 11:14	26°♒49'53			789 May 13 j 08:50	0°♏	
opposition	784 Apr 05 j 01:40	18°♒58'46	1°52'22		789 Jun 30 j 03:30	0°♐	
greatest brilliancy	784 Apr 05 j 20:50	18°♒41'07	-1.8m	evening set	789 Jul 12 j 01:05	7°♐30'45	
min. Earth dist.	784 Apr 12 j 14:17	16°♒12'54	0.55871 AU	max. Earth dist.	789 Aug 14 j 15:35	28°♐54'25	2.65986 AU
direct	784 May 15 j 03:53	9°♒31'20			789 Aug 16 j 08:27	0°♑	
desc. node	784 May 16 j 21:22	9°♒32'31					
	784 Jul 18 j 04:29	0°♌		conjunction	789 Aug 26 j 17:22	6°♑40'51	1°02'05
	784 Sep 04 j 09:45	0°♏		minimum elong	789 Aug 26 j 18:16	6°♑42'19	1°02'05
	784 Oct 15 j 22:59	0°♐			789 Oct 01 j 09:48	0°♒	
	784 Nov 24 j 07:17	0°♑		morning rise	789 Oct 10 j 12:38	6°♒03'03	
	785 Jan 02 j 07:39	0°♋			789 Nov 15 j 00:03	0°♌	
	785 Feb 11 j 04:04	0°♌			789 Dec 28 j 02:34	0°♏	
asc. node	785 Mar 16 j 04:08	24°♌00'19		desc. node	790 Jan 06 j 18:31	6°♏51'27	
	785 Mar 24 j 14:21	0°♍			790 Feb 07 j 22:25	0°♐	
evening set	785 Apr 20 j 21:30	19°♍02'50			790 Mar 20 j 21:37	0°♑	
	785 May 06 j 22:49	0°♎			790 Apr 30 j 21:04	0°♋	
					790 Jun 12 j 18:48	0°♌	
conjunction	785 Jun 12 j 12:47	24°♎22'14	0°47'37		790 Aug 03 j 20:09	0°♍	
minimum elong	785 Jun 12 j 11:17	24°♎19'47	0°47'37	retrograde	790 Sep 14 j 03:35	10°♍27'56	
	785 Jun 21 j 03:14	0°♏		min. Earth dist.	790 Oct 13 j 08:06	4°♍36'27	0.48717 AU
max. Earth dist.	785 Jun 29 j 05:22	5°♏15'44	2.63244 AU	opposition	790 Oct 21 j 08:50	1°♍41'03	0°-49'-45
morning rise	785 Jul 30 j 19:22	25°♏34'38		greatest brilliancy	790 Oct 20 j 23:47	1°♍49'17	-2.2m
	785 Aug 06 j 17:58	0°♐			790 Oct 26 j 02:39	30°♌	
	785 Sep 23 j 08:01	0°♑		asc. node	790 Nov 06 j 01:12	26°♌44'26	
	785 Nov 10 j 19:34	0°♒		direct	790 Nov 24 j 00:03	24°♌32'41	
	785 Dec 31 j 03:03	0°♌			790 Dec 25 j 05:36	0°♍	
	786 Feb 25 j 18:41	0°♏			791 Feb 28 j 13:58	0°♎	
desc. node	786 Apr 03 j 20:25	13°♏41'17			791 Apr 22 j 05:05	0°♏	
retrograde	786 Apr 27 j 07:57	16°♏47'13			791 Jun 11 j 01:19	0°♐	
opposition	786 May 29 j 14:40	10°♏52'34	-3°-10'-37		791 Jul 29 j 01:05	0°♑	
greatest brilliancy	786 May 30 j 20:02	10°♏29'45	-2.5m	evening set	791 Aug 18 j 11:45	13°♑09'44	
min. Earth dist.	786 Jun 06 j 04:36	8°♏31'56	0.42869 AU	max. Earth dist.	791 Sep 09 j 02:00	27°♑20'56	2.59362 AU
direct	786 Jul 03 j 13:50	3°♏48'10			791 Sep 13 j 01:35	0°♒	
	786 Sep 12 j 10:47	0°♐					
	786 Oct 27 j 19:20	0°♑		conjunction	791 Oct 04 j 07:50	14°♒20'26	0°29'56
	786 Dec 08 j 20:56	0°♋		minimum elong	791 Oct 04 j 08:53	14°♒22'13	0°29'55
	787 Jan 19 j 20:42	0°♌			791 Oct 26 j 23:57	0°♌	
asc. node	787 Feb 01 j 02:46	8°♌37'55		morning rise	791 Nov 21 j 19:01	18°♌17'24	
	787 Mar 03 j 22:44	0°♍		desc. node	791 Nov 24 j 18:22	20°♌25'49	
	787 Apr 17 j 13:27	0°♎			791 Dec 07 j 22:47	0°♏	
	787 Jun 02 j 13:45	0°♏			792 Jan 17 j 07:01	0°♐	
evening set	787 Jun 04 j 13:18	1°♏16'32			792 Feb 25 j 13:53	0°♑	
	787 Jul 19 j 11:07	0°♐			792 Apr 04 j 13:35	0°♋	
					792 May 14 j 06:12	0°♌	
conjunction	787 Jul 22 j 00:36	1°♐37'56	1°08'30		792 Jun 25 j 02:40	0°♍	
minimum elong	787 Jul 22 j 00:14	1°♐37'20	1°08'30		792 Aug 11 j 06:15	0°♎	
max. Earth dist.	787 Jul 23 j 05:05	2°♐23'17	2.67345 AU	asc. node	792 Sep 22 j 23:27	20°♎25'04	
morning rise	787 Sep 04 j 23:00	0°♑16'03		retrograde	792 Oct 25 j 14:34	26°♎44'19	
	787 Sep 04 j 12:57	0°♑		min. Earth dist.	792 Nov 29 j 02:45	18°♎53'38	0.60549 AU

greatest brilliancy	792 Dec 03 j 12:20	17°II08'58	-1.6m	evening set	798 Jan 26 j 12:16	25°≈40'49	
opposition	792 Dec 04 j 07:33	16°II49'54	2°53'58		798 Feb 01 j 00:43	0°✕	
direct	793 Jan 10 j 23:08	8°II05'22			798 Mar 11 j 23:29	0°Υ	
	793 Mar 24 j 12:54	0°☿					
	793 May 19 j 18:10	0°♂		conjunction	798 Apr 02 j 12:19	16°Υ06'53	0°-26'-56
	793 Jul 08 j 19:57	0°♊		minimum elong	798 Apr 02 j 14:18	16°Υ10'33	0°26'56
	793 Aug 24 j 11:08	0°♈			798 Apr 21 j 12:08	0°♄	
evening set	793 Sep 27 j 20:44	23°♂24'24		asc. node	798 May 15 j 21:08	17°♄21'33	
	793 Oct 07 j 06:28	0°♍		max. Earth dist.	798 May 17 j 02:11	18°♄12'28	2.48903 AU
desc. node	793 Oct 11 j 17:19	3°♍09'01		morning rise	798 Jun 02 j 04:13	29°♄22'05	
max. Earth dist.	793 Oct 12 j 10:58	3°♍40'22	2.48141 AU		798 Jun 03 j 02:18	0°♊	
	793 Nov 17 j 16:30	0°♌			798 Jul 17 j 23:08	0°☿	
					798 Sep 03 j 06:53	0°♂	
conjunction	793 Nov 18 j 23:48	0°♌58'08	0°-23'-40		798 Oct 24 j 00:07	0°♊	
minimum elong	793 Nov 18 j 22:32	0°♌55'47	0°23'40		798 Dec 23 j 08:26	0°♈	
	793 Dec 27 j 07:26	0°♄		retrograde	799 Feb 10 j 18:33	11°♈33'36	
morning rise	794 Jan 16 j 19:01	15°♄52'36		opposition	799 Mar 20 j 11:58	3°♈10'45	2°58'50
	794 Feb 03 j 20:37	0°≈		greatest brilliancy	799 Mar 21 j 10:46	2°♈49'07	-1.6m
	794 Mar 14 j 03:59	0°✕		min. Earth dist.	799 Mar 26 j 18:25	0°♈48'16	0.60133 AU
	794 Apr 22 j 03:04	0°Υ			799 Mar 28 j 22:37	30°♊	
	794 Jun 01 j 16:28	0°♄		direct	799 Apr 30 j 10:14	23°♊21'31	
	794 Jul 14 j 23:38	0°♊		desc. node	799 Jun 03 j 13:45	29°♊53'34	
asc. node	794 Aug 10 j 22:15	17°♊18'13			799 Jun 03 j 21:07	0°♈	
	794 Sep 01 j 04:44	0°☿			799 Aug 02 j 00:40	0°♍	
	794 Nov 07 j 14:59	0°♂			799 Sep 15 j 16:33	0°♌	
retrograde	794 Nov 30 j 05:19	2°♂59'32			799 Oct 26 j 03:29	0°♄	
	794 Dec 21 j 09:30	30°♊☿			799 Dec 03 j 22:16	0°≈	
min. Earth dist.	795 Jan 08 j 01:16	23°♄42'08	0.66928 AU		800 Jan 11 j 12:23	0°✕	
opposition	795 Jan 09 j 10:33	23°♄08'49	4°23'31		800 Feb 19 j 23:25	0°Υ	
greatest brilliancy	795 Jan 09 j 02:22	23°♄17'01	-1.3m	evening set	800 Mar 31 j 07:44	29°Υ29'18	
direct	795 Feb 18 j 14:53	13°♄32'09		asc. node	800 Apr 01 j 19:28	0°♄33'04	
	795 Apr 20 j 19:19	0°♂			800 Apr 01 j 00:56	0°♄	
	795 Jun 17 j 03:39	0°♊			800 May 14 j 01:54	0°♊	
	795 Aug 04 j 18:07	0°♈					
desc. node	795 Aug 29 j 15:38	16°♈34'01		conjunction	800 May 26 j 03:41	8°♊10'23	0°31'41
	795 Sep 18 j 01:31	0°♍		minimum elong	800 May 26 j 02:17	8°♊08'02	0°31'39
	795 Oct 29 j 09:31	0°♌		max. Earth dist.	800 Jun 18 j 21:36	23°♊58'44	2.60182 AU
evening set	795 Nov 19 j 10:17	15°♌54'10			800 Jun 28 j 01:45	0°☿	
	795 Dec 07 j 17:01	0°♄		morning rise	800 Jul 15 j 19:16	11°☿30'53	
	796 Jan 14 j 22:13	0°≈			800 Aug 13 j 17:17	0°♂	
					800 Sep 30 j 18:07	0°♊	
conjunction	796 Jan 21 j 19:12	5°≈25'53	-1°-4'-51		800 Nov 19 j 13:52	0°♈	
minimum elong	796 Jan 21 j 18:44	5°≈24'58	1°04'53		801 Jan 12 j 21:51	0°♍	
max. Earth dist.	796 Jan 22 j 06:10	5°≈47'33	2.37142 AU	retrograde	801 Apr 01 j 11:41	25°♍07'05	
	796 Feb 21 j 23:37	0°✕		desc. node	801 Apr 20 j 11:57	22°♍51'16	
	796 Mar 31 j 18:46	0°Υ		opposition	801 May 05 j 15:42	18°♍21'09	0°-48'-11
morning rise	796 Apr 01 j 03:28	0°Υ16'31		greatest brilliancy	801 May 06 j 01:26	18°♍12'55	-2.2m
	796 May 11 j 02:48	0°♄		min. Earth dist.	801 May 14 j 03:22	15°♍28'55	0.48001 AU
	796 Jun 22 j 16:08	0°♊		direct	801 Jun 12 j 06:47	10°♍02'40	
asc. node	796 Jun 27 j 22:23	3°♊34'55			801 Aug 12 j 04:00	0°♌	
	796 Aug 07 j 03:18	0°☿			801 Sep 28 j 04:48	0°♄	
	796 Sep 26 j 01:21	0°♂			801 Nov 08 j 15:05	0°≈	
	796 Nov 29 j 03:39	0°♊			801 Dec 18 j 21:43	0°✕	
retrograde	797 Jan 02 j 22:56	6°♊20'13			802 Jan 28 j 17:29	0°Υ	
	797 Feb 03 j 18:30	30°♊♂		asc. node	802 Feb 17 j 19:13	14°Υ24'27	
opposition	797 Feb 11 j 12:04	27°♂01'21	4°25'21		802 Mar 11 j 23:04	0°♄	
greatest brilliancy	797 Feb 11 j 23:09	26°♂50'26	-1.3m		802 Apr 24 j 22:43	0°♊	
min. Earth dist.	797 Feb 14 j 00:11	26°♂02'06	0.66805 AU	evening set	802 May 19 j 06:20	16°♊06'48	
direct	797 Mar 24 j 20:57	17°♂00'58			802 Jun 09 j 13:09	0°☿	
	797 May 16 j 02:42	0°♊					
	797 Jul 12 j 00:43	0°♈		conjunction	802 Jul 07 j 06:34	17°☿51'53	1°03'46
desc. node	797 Jul 16 j 14:29	2°♈46'59		minimum elong	802 Jul 07 j 05:38	17°☿50'24	1°03'47
	797 Aug 27 j 08:46	0°♍		max. Earth dist.	802 Jul 14 j 02:45	22°☿14'39	2.66396 AU
	797 Oct 08 j 06:38	0°♌			802 Jul 26 j 06:19	0°♂	
	797 Nov 16 j 16:48	0°♄		morning rise	802 Aug 22 j 02:13	17°♂04'16	
greatest brilliancy	797 Dec 13 j 14:13	21°♄03'48	1.2m		802 Sep 11 j 10:45	0°♊	
	797 Dec 24 j 22:04	0°≈			802 Oct 28 j 15:56	0°♈	

	802 Dec 14 j 22:01	0°♄		direct	807 Dec 25 j 16:49	22°♄46'51	
	803 Jan 31 j 19:54	0°♂			808 Jan 31 j 20:44	0°♄	
desc. node	803 Mar 08 j 11:48	21°♂26'39			808 Apr 05 j 10:54	0°♄	
	803 Mar 23 j 12:06	0°♄			808 May 28 j 03:29	0°♄	
retrograde	803 Jun 13 j 05:16	0°♄			808 Jul 16 j 04:17	0°♄	
	803 Jun 14 j 22:30	0°♄01'09			808 Aug 31 j 11:58	0°♄	
	803 Jun 16 j 15:39	30°♄		evening set	808 Sep 10 j 23:05	7°♄00'53	
opposition	803 Jul 15 j 00:48	25°♄03'13	-6°-37'-27	max. Earth dist.	808 Sep 27 j 06:37	18°♄08'20	2.52972 AU
greatest brilliancy	803 Jul 15 j 13:48	24°♄54'33	-2.8m		808 Oct 14 j 07:32	0°♄	
min. Earth dist.	803 Jul 16 j 19:56	24°♄34'30	0.37662 AU	desc. node	808 Oct 28 j 08:47	9°♄58'25	
direct	803 Aug 14 j 10:53	19°♄54'56					
	803 Sep 24 j 19:08	0°♄		conjunction	808 Oct 30 j 08:38	11°♄24'07	0°-1'-15
	803 Nov 17 j 23:13	0°♄		minimum elong	808 Oct 30 j 08:32	11°♄23'57	0°01'16
	804 Jan 03 j 05:56	0°♄		behind sun begin	808 Oct 29 j 11:02	10°♄45'26	
asc. node	804 Jan 05 j 17:41	1°♄38'34		behind sun end	808 Oct 31 j 06:02	12°♄02'30	
	804 Feb 17 j 16:56	0°♄			808 Nov 24 j 21:43	0°♄	
	804 Apr 03 j 18:42	0°♄		morning rise	808 Dec 23 j 01:05	21°♄04'09	
	804 May 20 j 16:27	0°♄			809 Jan 03 j 18:26	0°♄	
evening set	804 Jun 27 j 10:56	23°♄56'13			809 Feb 11 j 13:27	0°♄	
	804 Jul 07 j 00:39	0°♄			809 Mar 22 j 01:43	0°♄	
max. Earth dist.	804 Aug 05 j 14:04	18°♄46'58	2.67185 AU		809 Apr 30 j 05:12	0°♄	
					809 Jun 10 j 01:25	0°♄	
conjunction	804 Aug 12 j 11:32	23°♄11'05	1°07'41		809 Jul 24 j 02:54	0°♄	
minimum elong	804 Aug 12 j 12:01	23°♄11'51	1°07'41	asc. node	809 Aug 27 j 15:29	20°♄58'42	
	804 Aug 23 j 02:58	0°♄			809 Sep 13 j 10:20	0°♄	
morning rise	804 Sep 25 j 22:49	21°♄52'20		retrograde	809 Nov 16 j 18:13	19°♄42'20	
	804 Oct 08 j 08:54	0°♄		min. Earth dist.	809 Dec 24 j 00:46	10°♄55'29	0.65168 AU
	804 Nov 22 j 10:43	0°♄		opposition	809 Dec 26 j 22:17	9°♄45'52	4°00'41
	805 Jan 05 j 07:46	0°♄		greatest brilliancy	809 Dec 26 j 07:50	10°♄00'21	-1.3m
desc. node	805 Jan 23 j 11:35	12°♄37'52		direct	810 Feb 04 j 06:32	0°♄25'49	
	805 Feb 17 j 04:52	0°♄			810 May 03 j 13:28	0°♄	
	805 Mar 31 j 13:16	0°♄			810 Jun 25 j 18:14	0°♄	
	805 May 13 j 15:54	0°♄			810 Aug 12 j 08:40	0°♄	
	805 Jul 01 j 02:54	0°♄		desc. node	810 Sep 15 j 07:39	22°♄56'53	
retrograde	805 Aug 24 j 15:59	17°♄09'07			810 Sep 25 j 09:37	0°♄	
min. Earth dist.	805 Sep 20 j 22:29	12°♄07'22	0.43579 AU	evening set	810 Oct 28 j 00:50	23°♄32'58	
opposition	805 Sep 28 j 20:17	9°♄28'57	-3°-6'-12		810 Nov 05 j 17:31	0°♄	
greatest brilliancy	805 Sep 27 j 15:55	9°♄52'46	-2.5m	max. Earth dist.	810 Nov 18 j 08:34	9°♄29'04	2.40306 AU
direct	805 Oct 30 j 15:27	3°♄14'02			810 Dec 15 j 03:07	0°♄	
asc. node	805 Nov 22 j 16:02	6°♄25'34					
	806 Jan 17 j 08:01	0°♄		conjunction	810 Dec 25 j 12:44	8°♄05'19	0°-55'-28
	806 Mar 11 j 11:45	0°♄		minimum elong	810 Dec 25 j 10:24	8°♄00'46	0°55'28
	806 Apr 30 j 12:16	0°♄			811 Jan 22 j 10:37	0°♄	
	806 Jun 18 j 08:02	0°♄			811 Mar 01 j 13:22	0°♄	
evening set	806 Aug 03 j 19:10	29°♄16'29		morning rise	811 Mar 03 j 07:26	1°♄22'17	
	806 Aug 04 j 22:22	0°♄			811 Apr 09 j 08:50	0°♄	
max. Earth dist.	806 Aug 29 j 17:24	16°♄01'44	2.62568 AU		811 May 19 j 17:13	0°♄	
					811 Jul 01 j 09:42	0°♄	
conjunction	806 Sep 18 j 18:35	29°♄14'14	0°45'21	asc. node	811 Jul 15 j 13:47	9°♄30'34	
minimum elong	806 Sep 18 j 19:48	29°♄16'15	0°45'20		811 Aug 16 j 11:26	0°♄	
	806 Sep 19 j 22:06	0°♄			811 Oct 07 j 21:53	0°♄	
	806 Nov 03 j 01:30	0°♄		retrograde	811 Dec 21 j 06:22	23°♄35'25	
morning rise	806 Nov 04 j 04:56	0°♄47'38		opposition	812 Jan 30 j 05:00	14°♄01'37	4°34'03
desc. node	806 Dec 11 j 10:04	27°♄07'53		greatest brilliancy	812 Jan 30 j 08:33	13°♄58'06	-1.2m
	806 Dec 15 j 09:29	0°♄		min. Earth dist.	812 Jan 31 j 04:44	13°♄38'03	0.67638 AU
	807 Jan 25 j 05:03	0°♄		direct	812 Mar 11 j 06:40	4°♄07'20	
	807 Mar 05 j 23:53	0°♄			812 May 30 j 06:17	0°♄	
	807 Apr 14 j 11:41	0°♄			812 Jul 21 j 04:54	0°♄	
	807 May 24 j 20:04	0°♄		desc. node	812 Aug 02 j 06:11	7°♄41'09	
	807 Jul 07 j 02:24	0°♄			812 Sep 04 j 11:14	0°♄	
	807 Aug 29 j 10:19	0°♄			812 Oct 16 j 01:34	0°♄	
asc. node	807 Oct 10 j 15:45	10°♄41'00			812 Nov 24 j 09:34	0°♄	
retrograde	807 Oct 11 j 08:55	10°♄41'13		evening set	812 Dec 29 j 07:03	27°♄24'14	
min. Earth dist.	807 Nov 12 j 20:28	3°♄33'46	0.56396 AU		813 Jan 01 j 13:53	0°♄	
opposition	807 Nov 19 j 10:15	1°♄00'16	1°47'28		813 Feb 08 j 14:57	0°♄	
greatest brilliancy	807 Nov 18 j 18:11	1°♄15'55	-1.8m				
	807 Nov 22 j 00:46	30°♄		conjunction	813 Mar 06 j 22:59	20°♄26'53	0°-49'-54

minimum elong	813 Mar 07 j 02:03	20° ✕ 32'46	0°49'53	desc. node	818 Mar 25 j 03:34	19° ✕ 04'05	
	813 Mar 19 j 11:01	0° Υ			818 Apr 29 j 03:13	0° Θ	
max. Earth dist.	813 Apr 27 j 03:18	28° Υ 45'20	2.43523 AU	retrograde	818 May 13 j 16:53	1° Θ 16'14	
	813 Apr 28 j 20:26	0° ⋈			818 May 28 j 02:16	30° R ✕	
morning rise	813 May 11 j 18:04	9° ⋈ 16'52		opposition	818 Jun 14 j 00:43	25° ✕ 49'09	-4°-37'-44
asc. node	813 Jun 01 j 12:54	23° ⋈ 54'52		greatest brilliancy	818 Jun 15 j 08:45	25° ✕ 25'47	-2.7m
	813 Jun 10 j 08:19	0° Π		min. Earth dist.	818 Jun 20 j 06:36	24° ✕ 00'35	0.40454 AU
	813 Jul 25 j 07:27	0° ☿		direct	818 Jul 17 j 04:41	19° ✕ 31'46	
	813 Sep 11 j 05:57	0° ♂			818 Aug 27 j 19:58	0° Θ	
	813 Nov 03 j 08:19	0° ♊			818 Oct 18 j 22:14	0° ≈	
retrograde	814 Jan 25 j 19:47	27° ♊ 29'47			818 Dec 01 j 21:21	0° ✕	
opposition	814 Mar 05 j 10:11	18° ♊ 41'37	3°44'44		819 Jan 13 j 20:17	0° Υ	
greatest brilliancy	814 Mar 06 j 06:41	18° ♊ 21'48	-1.4m	asc. node	819 Jan 22 j 09:22	5° Υ 55'32	
min. Earth dist.	814 Mar 10 j 06:39	16° ♊ 49'05	0.63489 AU		819 Feb 26 j 13:00	0° ⋈	
direct	814 Apr 15 j 18:19	8° ♊ 42'18			819 Apr 12 j 13:11	0° Π	
desc. node	814 Jun 20 j 05:18	28° ♊ 29'32			819 May 28 j 19:38	0° ☿	
	814 Jun 23 j 04:06	0° ♊		evening set	819 Jun 13 j 11:27	10° ☿ 01'24	
	814 Aug 12 j 15:44	0° ♋			819 Jul 14 j 20:05	0° ♂	
	814 Sep 24 j 18:04	0° ✕		max. Earth dist.	819 Jul 28 j 12:04	8° ♂ 41'43	2.67527 AU
	814 Nov 03 j 15:14	0° Θ					
	814 Dec 12 j 02:33	0° ≈		conjunction	819 Jul 30 j 06:59	9° ♂ 50'01	1°09'21
	815 Jan 19 j 10:26	0° ✕		minimum elong	819 Jul 30 j 06:56	9° ♂ 49'55	1°09'22
	815 Feb 27 j 15:01	0° Υ			819 Aug 30 j 21:37	0° ♊	
evening set	815 Mar 09 j 03:46	7° Υ 07'53		morning rise	819 Sep 12 j 22:04	8° ♊ 20'48	
	815 Apr 09 j 09:57	0° ⋈			819 Oct 16 j 10:13	0° ♊	
asc. node	815 Apr 19 j 12:02	7° ⋈ 12'24			819 Dec 01 j 03:15	0° ♋	
					820 Jan 15 j 02:11	0° ✕	
conjunction	815 May 07 j 22:03	20° ⋈ 08'41	0°11'21	desc. node	820 Feb 10 j 02:49	17° ✕ 31'25	
minimum elong	815 May 07 j 21:24	20° ⋈ 07'33	0°11'21		820 Feb 28 j 14:53	0° Θ	
behind sun begin	815 May 07 j 04:43	19° ⋈ 38'32			820 Apr 13 j 15:13	0° ≈	
behind sun end	815 May 08 j 14:06	20° ⋈ 36'32			820 Jun 01 j 20:27	0° ✕	
	815 May 22 j 04:59	0° Π		retrograde	820 Jul 31 j 06:27	19° ✕ 17'29	
max. Earth dist.	815 Jun 08 j 09:23	11° Π 38'58	2.56308 AU	min. Earth dist.	820 Aug 26 j 20:07	14° ✕ 49'03	0.39369 AU
morning rise	815 Jun 30 j 18:01	26° Π 30'32		greatest brilliancy	820 Aug 31 j 10:57	13° ✕ 28'01	-2.7m
	815 Jul 06 j 01:45	0° ☿		opposition	820 Sep 01 j 18:24	13° ✕ 04'50	-5°-31'-43
	815 Aug 21 j 20:19	0° ♂		direct	820 Oct 01 j 21:01	7° ✕ 44'34	
	815 Oct 09 j 13:44	0° ♊		asc. node	820 Dec 09 j 09:11	0° Υ 00'59	
	815 Nov 30 j 13:19	0° ♊			820 Dec 09 j 08:26	0° Υ	
	816 Feb 03 j 09:37	0° ♋			821 Jan 30 j 21:17	0° ⋈	
retrograde	816 Mar 10 j 12:18	6° ♋ 40'45			821 Mar 20 j 21:40	0° Π	
	816 Apr 13 j 00:42	30° R ♊			821 May 08 j 07:37	0° ☿	
opposition	816 Apr 15 j 08:24	29° ♊ 10'25	1°02'35		821 Jun 25 j 09:52	0° ♂	
greatest brilliancy	816 Apr 15 j 20:54	28° ♊ 59'11	-1.9m	evening set	821 Jul 20 j 08:05	15° ♂ 42'55	
min. Earth dist.	816 Apr 23 j 10:23	26° ♊ 16'21	0.53197 AU		821 Aug 11 j 17:49	0° ♊	
desc. node	816 May 07 j 05:02	22° ♊ 06'45		max. Earth dist.	821 Aug 20 j 03:18	5° ♊ 23'55	2.64998 AU
direct	816 May 24 j 18:38	20° ♊ 01'24					
	816 Jul 05 j 13:08	0° ♋		conjunction	821 Sep 03 j 23:42	15° ♊ 01'28	0°57'02
	816 Aug 28 j 00:39	0° ✕		minimum elong	821 Sep 04 j 00:48	15° ♊ 03'14	0°57'02
	816 Oct 09 j 17:18	0° Θ			821 Sep 26 j 18:45	0° ♊	
	816 Nov 18 j 13:54	0° ≈		morning rise	821 Oct 19 j 04:35	14° ♊ 59'25	
	816 Dec 27 j 21:58	0° ✕			821 Nov 10 j 05:05	0° ♋	
	817 Feb 06 j 00:26	0° Υ			821 Dec 23 j 00:37	0° ✕	
asc. node	817 Mar 06 j 10:09	20° Υ 36'10		desc. node	821 Dec 28 j 02:09	3° ✕ 37'11	
	817 Mar 19 j 15:57	0° ⋈			822 Feb 02 j 10:39	0° Θ	
evening set	817 May 01 j 16:52	29° ⋈ 40'31			822 Mar 14 j 21:47	0° ≈	
	817 May 02 j 04:25	0° Π			822 Apr 24 j 04:31	0° ✕	
	817 Jun 16 j 11:27	0° ☿			822 Jun 04 j 18:35	0° Υ	
					822 Jul 21 j 10:34	0° ⋈	
conjunction	817 Jun 21 j 20:13	3° ☿ 29'26	0°54'50	retrograde	822 Sep 24 j 14:28	22° ⋈ 30'12	
minimum elong	817 Jun 21 j 18:52	3° ☿ 27'13	0°54'49	min. Earth dist.	822 Oct 24 j 22:54	16° ⋈ 10'52	0.51582 AU
max. Earth dist.	817 Jul 04 j 21:16	11° ☿ 55'45	2.64613 AU	asc. node	822 Oct 27 j 08:00	15° ⋈ 17'50	
	817 Aug 02 j 02:08	0° ♂		opposition	822 Nov 01 j 15:09	13° ⋈ 18'01	0°15'56
morning rise	817 Aug 08 j 01:34	3° ♂ 48'12		greatest brilliancy	822 Nov 11 j 05:37	9° ⋈ 54'45	-2.1m
	817 Sep 18 j 11:37	0° ♊		direct	822 Dec 06 j 06:53	5° ⋈ 43'46	
	817 Nov 05 j 10:03	0° ♊			823 Feb 20 j 03:57	0° Π	
	817 Dec 24 j 08:07	0° ♋			823 Apr 16 j 07:27	0° ☿	
	818 Feb 14 j 07:42	0° ✕			823 Jun 05 j 23:29	0° ♂	

	823 Jul 24 j 07:14	0°♎		max. Earth dist.	828 Mar 21 j 00:44	25°♏29'35	2.38504 AU
evening set	823 Aug 27 j 04:12	21°♎52'58			828 Mar 26 j 22:28	0°♐	
	823 Sep 08 j 10:29	0°♑		morning rise	828 Apr 16 j 21:47	15°♐46'45	
max. Earth dist.	823 Sep 15 j 16:37	4°♑51'20	2.57281 AU		828 May 06 j 06:07	0°♑	
					828 Jun 17 j 17:34	0°♒	
conjunction	823 Oct 13 j 17:20	23°♑59'27	0°19'22	asc. node	828 Jun 18 j 04:36	0°♒18'56	
minimum elong	823 Oct 13 j 18:06	24°♑00'46	0°19'21		828 Aug 01 j 22:10	0°♓	
	823 Oct 22 j 08:14	0°♒			828 Sep 19 j 20:50	0°♓	
desc. node	823 Nov 15 j 00:48	16°♒49'09			828 Nov 16 j 15:58	0°♓	
morning rise	823 Dec 02 j 16:54	29°♒38'51		retrograde	829 Jan 11 j 00:36	14°♓11'24	
	823 Dec 03 j 04:26	0°♓		opposition	829 Feb 19 j 07:20	5°♓02'25	4°14'14
	824 Jan 12 j 08:37	0°♓		greatest brilliancy	829 Feb 19 j 22:15	4°♓47'48	-1.3m
	824 Feb 20 j 11:04	0°♓		min. Earth dist.	829 Feb 22 j 15:52	3°♓43'31	0.65919 AU
	824 Mar 30 j 05:52	0°♏			829 Mar 04 j 17:12	30°♓	
	824 May 08 j 15:59	0°♐		direct	829 Apr 01 j 18:03	25°♓00'41	
	824 Jun 19 j 00:03	0°♑			829 May 02 j 01:58	0°♒	
	824 Aug 03 j 12:14	0°♒			829 Jul 05 j 11:12	0°♑	
asc. node	824 Sep 13 j 06:44	22°♒10'10		desc. node	829 Jul 06 j 22:11	0°♑50'57	
	824 Oct 02 j 18:53	0°♓			829 Aug 21 j 21:40	0°♒	
retrograde	824 Nov 02 j 21:15	5°♓41'26			829 Oct 03 j 04:22	0°♓	
	824 Dec 01 j 20:55	30°♒			829 Nov 11 j 17:54	0°♓	
min. Earth dist.	824 Dec 08 j 10:15	27°♒29'17	0.62452 AU		829 Dec 20 j 00:48	0°♓	
opposition	824 Dec 12 j 19:36	25°♒44'16	3°23'29		830 Jan 27 j 04:28	0°♏	
greatest brilliancy	824 Dec 12 j 01:02	26°♒02'47	-1.5m	evening set	830 Feb 11 j 03:25	11°♏37'17	
direct	825 Jan 20 j 03:01	16°♒45'23			830 Mar 07 j 04:07	0°♐	
	825 Mar 14 j 15:29	0°♓					
	825 May 13 j 17:43	0°♓		conjunction	830 Apr 16 j 04:40	29°♐36'16	0°-12'-32
	825 Jul 03 j 17:27	0°♑		minimum elong	830 Apr 16 j 05:33	29°♐37'52	0°12'32
	825 Aug 19 j 16:25	0°♑		behind sun begin	830 Apr 15 j 13:35	29°♐09'03	
desc. node	825 Oct 01 j 23:24	29°♑34'26		behind sun end	830 Apr 16 j 21:30	0°♑06'40	
	825 Oct 02 j 13:55	0°♒			830 Apr 16 j 17:48	0°♑	
evening set	825 Oct 08 j 05:53	4°♒00'33		asc. node	830 May 06 j 03:11	13°♑50'37	
max. Earth dist.	825 Oct 23 j 01:27	14°♒38'33	2.45296 AU	max. Earth dist.	830 May 26 j 01:38	27°♑44'34	2.51706 AU
	825 Nov 12 j 23:32	0°♓			830 May 29 j 08:22	0°♒	
				morning rise	830 Jun 13 j 04:15	10°♒05'30	
conjunction	825 Dec 01 j 08:33	13°♓47'50	0°-36'-27		830 Jul 13 j 03:49	0°♓	
minimum elong	825 Dec 01 j 06:35	13°♓44'08	0°36'27		830 Aug 29 j 04:42	0°♓	
	825 Dec 22 j 12:43	0°♓			830 Oct 17 j 23:28	0°♑	
	826 Jan 29 j 23:58	0°♓			830 Dec 12 j 20:33	0°♑	
morning rise	826 Feb 01 j 11:21	1°♓56'36		retrograde	831 Feb 20 j 13:55	20°♑31'55	
greatest brilliancy	826 Feb 07 j 21:47	7°♓00'00	1.2m	opposition	831 Mar 29 j 17:29	12°♑25'51	2°23'03
	826 Mar 09 j 05:29	0°♏		greatest brilliancy	831 Mar 30 j 15:05	12°♑05'40	-1.7m
	826 Apr 17 j 02:34	0°♐		min. Earth dist.	831 Apr 05 j 17:35	9°♑49'06	0.57885 AU
	826 May 27 j 12:56	0°♑		direct	831 May 09 j 06:29	2°♑46'51	
	826 Jul 09 j 12:04	0°♒		desc. node	831 May 24 j 20:32	4°♑18'09	
asc. node	826 Aug 01 j 06:36	14°♒56'11			831 Jul 25 j 01:22	0°♒	
	826 Aug 25 j 15:04	0°♓			831 Sep 09 j 11:38	0°♓	
	826 Oct 22 j 14:48	0°♓			831 Oct 20 j 12:33	0°♓	
retrograde	826 Dec 07 j 20:42	10°♓50'19			831 Nov 28 j 14:30	0°♓	
opposition	827 Jan 17 j 00:53	1°♓04'43	4°30'52		832 Jan 06 j 09:29	0°♏	
greatest brilliancy	827 Jan 16 j 20:44	1°♓08'51	-1.2m		832 Feb 15 j 00:24	0°♐	
min. Earth dist.	827 Jan 16 j 12:00	1°♓17'34	0.67464 AU	asc. node	832 Mar 23 j 03:21	27°♐05'13	
	827 Jan 19 j 17:50	30°♒			832 Mar 27 j 05:22	0°♑	
direct	827 Feb 26 j 14:16	21°♓20'33		evening set	832 Apr 12 j 06:44	11°♑19'42	
	827 Apr 09 j 12:52	0°♓			832 May 09 j 08:53	0°♒	
	827 Jun 11 j 00:05	0°♑					
	827 Jul 30 j 13:44	0°♑		conjunction	832 Jun 05 j 06:10	18°♒02'43	0°41'27
desc. node	827 Aug 19 j 23:07	13°♑23'22		minimum elong	832 Jun 05 j 04:39	18°♒00'12	0°41'25
	827 Sep 13 j 04:37	0°♒			832 Jun 23 j 10:02	0°♓	
	827 Oct 24 j 14:53	0°♓		max. Earth dist.	832 Jun 25 j 01:41	1°♓04'47	2.61970 AU
	827 Dec 02 j 22:24	0°♓		morning rise	832 Jul 24 j 12:08	20°♓06'44	
evening set	827 Dec 03 j 10:16	0°♓23'04			832 Aug 08 j 23:59	0°♓	
	828 Jan 10 j 03:00	0°♓			832 Sep 25 j 17:44	0°♑	
					832 Nov 13 j 17:14	0°♑	
conjunction	828 Feb 07 j 04:37	22°♓10'07	-1°-3'-37		833 Jan 04 j 09:19	0°♒	
minimum elong	828 Feb 07 j 05:58	22°♓12'47	1°03'39		833 Mar 08 j 19:58	0°♓	
	828 Feb 17 j 03:46	0°♏		desc. node	833 Apr 10 j 19:25	7°♓11'17	

retrograde	833 Apr 15 j 12:23	7°♏19'24			838 Jun 13 j 10:40	0°♏	
opposition	833 May 18 j 15:31	1°♏01'15	-2°-5'-49		838 Jul 31 j 06:44	0°♏	
greatest brilliancy	833 May 19 j 14:03	0°♏42'58	-2.4m	evening set	838 Aug 12 j 03:44	7°♏37'05	
	833 May 21 j 18:43	30°♏		max. Earth dist.	838 Sep 04 j 14:47	22°♏54'29	2.60884 AU
min. Earth dist.	833 May 26 j 20:00	28°♏22'24	0.45101 AU		838 Sep 15 j 07:51	0°♏	
direct	833 Jun 23 j 21:20	23°♏20'59					
	833 Jul 26 j 09:29	0°♏		conjunction	838 Sep 27 j 12:48	8°♏10'38	0°36'51
	833 Sep 19 j 13:14	0°♏		minimum elong	838 Sep 27 j 13:57	8°♏12'35	0°36'51
	833 Nov 01 j 16:52	0°♏			838 Oct 29 j 09:15	0°♏	
	833 Dec 12 j 19:47	0°♏		morning rise	838 Nov 13 j 23:38	10°♏57'08	
	834 Jan 23 j 04:34	0°♏		desc. node	838 Dec 01 j 17:14	23°♏37'07	
asc. node	834 Feb 08 j 02:24	11°♏19'21			838 Dec 10 j 12:56	0°♏	
	834 Mar 06 j 19:39	0°♏			839 Jan 20 j 02:30	0°♏	
	834 Apr 20 j 02:01	0°♏			839 Feb 28 j 14:38	0°♏	
evening set	834 May 28 j 16:56	25°♏21'37			839 Apr 08 j 19:04	0°♏	
	834 Jun 04 j 20:51	0°♏			839 May 18 j 16:42	0°♏	
					839 Jun 29 j 23:21	0°♏	
conjunction	834 Jul 15 j 19:05	26°♏15'58	1°07'01		839 Aug 17 j 17:06	0°♏	
minimum elong	834 Jul 15 j 18:27	26°♏14'58	1°07'01	asc. node	839 Sep 30 j 23:07	18°♏06'27	
max. Earth dist.	834 Jul 19 j 11:05	28°♏36'18	2.67019 AU	retrograde	839 Oct 20 j 06:00	20°♏30'45	
	834 Jul 21 j 15:35	0°♏		min. Earth dist.	839 Nov 22 j 21:01	12°♏58'33	0.58802 AU
morning rise	834 Aug 30 j 01:32	25°♏05'44		opposition	839 Nov 28 j 16:46	10°♏40'58	2°28'46
	834 Sep 06 j 18:17	0°♏		greatest brilliancy	839 Nov 27 j 21:58	10°♏59'31	-1.7m
	834 Oct 23 j 16:31	0°♏		direct	840 Jan 04 j 18:17	2°♏09'17	
	834 Dec 09 j 06:56	0°♏			840 Mar 29 j 02:02	0°♏	
	835 Jan 24 j 21:01	0°♏			840 May 22 j 15:02	0°♏	
desc. node	835 Feb 26 j 18:53	20°♏54'40			840 Jul 11 j 06:29	0°♏	
	835 Mar 13 j 09:33	0°♏			840 Aug 26 j 19:42	0°♏	
	835 May 04 j 16:28	0°♏		evening set	840 Sep 20 j 09:26	16°♏35'32	
retrograde	835 Jul 02 j 21:06	18°♏02'15		max. Earth dist.	840 Oct 05 j 10:35	27°♏01'24	2.50367 AU
min. Earth dist.	835 Aug 01 j 00:45	13°♏16'45	0.37391 AU		840 Oct 09 j 16:23	0°♏	
opposition	835 Aug 02 j 08:48	12°♏55'21	-6°-52'-50	desc. node	840 Oct 18 j 16:16	6°♏21'58	
greatest brilliancy	835 Aug 02 j 02:00	12°♏59'53	-2.9m				
direct	835 Aug 31 j 23:25	8°♏00'20		conjunction	840 Nov 10 j 04:11	22°♏36'19	0°-13'-58
	835 Nov 06 j 04:36	0°♏		minimum elong	840 Nov 10 j 03:28	22°♏35'00	0°13'59
	835 Dec 26 j 14:10	0°♏		behind sun begin	840 Nov 09 j 15:46	22°♏13'39	
asc. node	835 Dec 27 j 00:30	0°♏16'15		behind sun end	840 Nov 10 j 15:09	22°♏56'22	
	836 Feb 11 j 14:14	0°♏			840 Nov 20 j 05:25	0°♏	
	836 Mar 29 j 10:51	0°♏			840 Dec 29 j 23:30	0°♏	
	836 May 15 j 19:08	0°♏		morning rise	841 Jan 05 j 12:32	5°♏02'04	
	836 Jul 02 j 08:42	0°♏			841 Feb 06 j 15:25	0°♏	
evening set	836 Jul 05 j 20:29	2°♏12'23			841 Mar 17 j 00:36	0°♏	
max. Earth dist.	836 Aug 10 j 21:00	25°♏05'50	2.66624 AU		841 Apr 25 j 00:30	0°♏	
	836 Aug 18 j 12:38	0°♏			841 Jun 04 j 15:06	0°♏	
					841 Jul 18 j 02:46	0°♏	
conjunction	836 Aug 20 j 15:10	1°♏21'08	1°04'53	asc. node	841 Aug 17 j 21:16	19°♏24'58	
minimum elong	836 Aug 20 j 15:55	1°♏22'20	1°04'53		841 Sep 05 j 04:55	0°♏	
	836 Oct 03 j 16:31	0°♏		retrograde	841 Nov 24 j 12:56	27°♏52'03	
morning rise	836 Oct 04 j 05:30	0°♏21'23		min. Earth dist.	842 Jan 01 j 17:10	18°♏47'25	0.66276 AU
	836 Nov 17 j 12:14	0°♏		opposition	842 Jan 03 j 18:15	17°♏58'16	4°15'40
	836 Dec 30 j 23:13	0°♏		greatest brilliancy	842 Jan 03 j 07:08	18°♏09'25	-1.3m
desc. node	837 Jan 13 j 17:44	9°♏41'37		direct	842 Feb 12 j 14:07	8°♏28'17	
	837 Feb 11 j 05:40	0°♏			842 Apr 25 j 17:59	0°♏	
	837 Mar 24 j 18:00	0°♏			842 Jun 20 j 03:39	0°♏	
	837 May 05 j 10:53	0°♏			842 Aug 07 j 08:57	0°♏	
	837 Jun 18 j 21:11	0°♏		desc. node	842 Sep 05 j 14:43	19°♏34'22	
	837 Aug 23 j 08:29	0°♏			842 Sep 20 j 14:54	0°♏	
retrograde	837 Sep 05 j 15:09	1°♏15'41			842 Nov 01 j 00:11	0°♏	
	837 Sep 18 j 17:12	30°♏		evening set	842 Nov 09 j 07:29	6°♏13'24	
min. Earth dist.	837 Oct 03 j 21:28	25°♏47'35	0.46372 AU		842 Dec 10 j 09:22	0°♏	
greatest brilliancy	837 Oct 11 j 06:59	23°♏11'29	-2.3m	max. Earth dist.	842 Dec 12 j 20:47	1°♏55'19	2.38062 AU
opposition	837 Oct 12 j 01:12	22°♏55'26	-1°-45'-16				
direct	837 Nov 13 j 20:19	16°♏10'12		conjunction	843 Jan 09 j 12:34	23°♏34'57	-1°-2'-24
asc. node	837 Nov 13 j 00:12	16°♏10'29		minimum elong	843 Jan 09 j 11:00	23°♏31'52	1°02'25
	838 Jan 05 j 16:16	0°♏			843 Jan 17 j 15:55	0°♏	
	838 Mar 04 j 17:12	0°♏			843 Feb 24 j 17:42	0°♏	
	838 Apr 25 j 01:40	0°♏		morning rise	843 Mar 20 j 07:32	18°♏21'06	

	843 Apr 04 j 12:04	0°♄		desc. node	848 Apr 27 j 10:57	9°♌48'52	
	843 May 14 j 18:50	0°♂		min. Earth dist.	848 May 04 j 21:16	7°♌13'22	0.50369 AU
	843 Jun 26 j 07:34	0°♂		direct	848 Jun 04 j 00:22	1°♌24'58	
asc. node	843 Jul 05 j 20:59	6°♂29'06			848 Aug 19 j 06:52	0°♌	
	843 Aug 10 j 21:57	0°♌			848 Oct 02 j 23:00	0°♌	
	843 Sep 30 j 13:39	0°♌			848 Nov 12 j 13:53	0°♌	
	843 Dec 13 j 20:51	0°♌			848 Dec 22 j 08:52	0°♌	
retrograde	843 Dec 29 j 01:28	1°♌21'26			849 Jan 31 j 19:11	0°♌	
	844 Jan 12 j 13:29	30°♌		asc. node	849 Feb 24 j 18:11	17°♌18'17	
opposition	844 Feb 06 j 19:48	21°♌55'31	4°30'16		849 Mar 14 j 16:48	0°♌	
greatest brilliancy	844 Feb 07 j 03:37	21°♌47'47	-1.2m		849 Apr 27 j 09:59	0°♂	
min. Earth dist.	844 Feb 08 j 16:03	21°♌11'44	0.67309 AU	evening set	849 May 11 j 21:32	9°♂40'38	
direct	844 Mar 19 j 02:24	11°♌57'07			849 Jun 11 j 19:58	0°♌	
	844 May 21 j 21:00	0°♌					
	844 Jul 15 j 09:08	0°♌		conjunction	849 Jun 30 j 18:42	12°♌15'40	1°00'33
desc. node	844 Jul 23 j 13:27	5°♌05'05		minimum elong	849 Jun 30 j 17:34	12°♌13'50	1°00'32
	844 Aug 30 j 06:54	0°♌		max. Earth dist.	849 Jul 10 j 09:34	18°♌26'36	2.65701 AU
	844 Oct 11 j 02:42	0°♌			849 Jul 28 j 11:14	0°♌	
	844 Nov 19 j 12:32	0°♌		morning rise	849 Aug 16 j 03:51	11°♌53'35	
	844 Dec 27 j 17:33	0°♌			849 Sep 13 j 17:29	0°♌	
evening set	845 Jan 14 j 03:38	13°♌45'43			849 Oct 31 j 05:26	0°♌	
greatest brilliancy	845 Jan 31 j 22:21	27°♌45'11	1.2m		849 Dec 18 j 02:41	0°♌	
	845 Feb 03 j 19:12	0°♌			850 Feb 05 j 10:10	0°♌	
	845 Mar 14 j 15:51	0°♌		desc. node	850 Mar 15 j 10:21	21°♌26'50	
					850 Apr 01 j 08:32	0°♌	
conjunction	845 Mar 22 j 07:15	5°♌46'35	0°-37'-26	retrograde	850 May 31 j 15:31	17°♌21'34	
minimum elong	845 Mar 22 j 09:56	5°♌51'39	0°37'25	opposition	850 Jul 01 j 00:46	12°♌16'20	-5°-55'-50
	845 Apr 24 j 01:51	0°♌		greatest brilliancy	850 Jul 02 j 02:15	11°♌58'54	-2.8m
max. Earth dist.	845 May 09 j 05:46	10°♌53'21	2.46524 AU	min. Earth dist.	850 Jul 05 j 02:54	11°♌09'16	0.38583 AU
asc. node	845 May 22 j 20:20	20°♌29'17		direct	850 Aug 01 j 12:47	6°♌42'41	
morning rise	845 May 24 j 06:37	21°♌29'09			850 Oct 07 j 06:02	0°♌	
	845 Jun 05 j 13:31	0°♂			850 Nov 23 j 22:43	0°♌	
	845 Jul 20 j 09:32	0°♌			851 Jan 07 j 10:14	0°♌	
	845 Sep 05 j 21:08	0°♌		asc. node	851 Jan 12 j 16:59	3°♌34'48	
	845 Oct 27 j 08:34	0°♌			851 Feb 20 j 23:02	0°♌	
	846 Jan 01 j 01:47	0°♌			851 Apr 07 j 11:33	0°♂	
retrograde	846 Feb 03 j 17:50	5°♌52'43			851 May 24 j 01:21	0°♌	
	846 Mar 06 j 15:14	30°♌		evening set	851 Jun 22 j 02:51	18°♌29'58	
opposition	846 Mar 13 j 21:46	27°♌17'58	3°20'00		851 Jul 10 j 05:32	0°♌	
greatest brilliancy	846 Mar 14 j 19:58	26°♌56'41	-1.5m	max. Earth dist.	851 Aug 02 j 18:04	14°♌57'07	2.67445 AU
min. Earth dist.	846 Mar 19 j 13:40	25°♌07'59	0.61756 AU				
direct	846 Apr 24 j 02:03	17°♌22'53		conjunction	851 Aug 07 j 10:15	17°♌55'48	1°08'50
desc. node	846 Jun 10 j 12:39	28°♌59'29		minimum elong	851 Aug 07 j 10:30	17°♌56'12	1°08'51
	846 Jun 12 j 20:16	0°♌			851 Aug 26 j 07:37	0°♌	
	846 Aug 06 j 04:35	0°♌		morning rise	851 Sep 20 j 21:46	16°♌28'36	
	846 Sep 19 j 03:42	0°♌			851 Oct 11 j 16:46	0°♌	
	846 Oct 29 j 08:42	0°♌			851 Nov 26 j 01:29	0°♌	
	846 Dec 06 j 23:59	0°♌			852 Jan 09 j 09:34	0°♌	
	847 Jan 14 j 10:44	0°♌		desc. node	852 Jan 31 j 10:43	15°♌08'37	
	847 Feb 22 j 17:44	0°♌			852 Feb 21 j 22:10	0°♌	
evening set	847 Mar 22 j 14:34	20°♌35'48			852 Apr 05 j 05:09	0°♌	
	847 Apr 04 j 14:59	0°♌			852 May 20 j 00:46	0°♌	
asc. node	847 Apr 09 j 18:40	3°♌40'59			852 Jul 15 j 06:35	0°♌	
	847 May 17 j 11:57	0°♂		retrograde	852 Aug 14 j 14:47	6°♌01'05	
				min. Earth dist.	852 Sep 10 j 08:21	1°♌17'52	0.41499 AU
conjunction	847 May 19 j 02:57	1°♂06'35	0°23'34		852 Sep 14 j 11:25	30°♌	
minimum elong	847 May 19 j 01:46	1°♂04'34	0°23'33	greatest brilliancy	852 Sep 16 j 07:16	29°♌24'57	-2.6m
max. Earth dist.	847 Jun 15 j 04:06	19°♂18'41	2.58547 AU	opposition	852 Sep 17 j 15:57	28°♌58'54	-4°-10'-53
	847 Jul 01 j 09:06	0°♌		direct	852 Oct 18 j 15:52	23°♌09'28	
morning rise	847 Jul 10 j 02:05	5°♌40'52			852 Nov 22 j 07:24	0°♌	
	847 Aug 17 j 00:39	0°♌		asc. node	852 Nov 29 j 15:04	2°♌46'20	
	847 Oct 04 j 07:07	0°♌			853 Jan 22 j 21:43	0°♌	
	847 Nov 23 j 20:50	0°♌			853 Mar 14 j 21:59	0°♂	
	848 Jan 20 j 01:12	0°♌			853 May 03 j 03:47	0°♌	
retrograde	848 Mar 22 j 13:17	17°♌16'04			853 Jun 20 j 15:27	0°♌	
opposition	848 Apr 26 j 11:44	10°♌09'09	0°02'57	evening set	853 Jul 28 j 14:28	23°♌54'32	
greatest brilliancy	860 Aug 20 j 11:28	15°♌00'56	47.7m		853 Aug 07 j 03:25	0°♌	

max. Earth dist.	853 Aug 25 j 17:09	11° \mathbb{M} 58'23	2.63762 AU		858 Mar 04 j 07:51	0° \mathbb{H}	
					858 Apr 12 j 03:12	0° \mathbb{Y}	
conjunction	853 Sep 12 j 08:38	23° \mathbb{M} 30'23	0°50'42		858 May 22 j 10:57	0° \mathbb{B}	
minimum elong	853 Sep 12 j 09:49	23° \mathbb{M} 32'20	0°50'42		858 Jul 04 j 04:15	0° \mathbb{H}	
	853 Sep 22 j 04:26	0° \mathbb{A}		asc. node	858 Jul 22 j 13:02	12° \mathbb{H} 14'29	
morning rise	853 Oct 28 j 03:39	24° \mathbb{A} 15'38			858 Aug 19 j 12:35	0° \mathbb{B}	
	853 Nov 05 j 11:44	0° \mathbb{M}			858 Oct 12 j 11:34	0° \mathbb{Q}	
desc. node	853 Dec 18 j 09:20	0° \mathbb{X} 13'55		retrograde	858 Dec 15 j 13:11	18° \mathbb{Q} 38'40	
	853 Dec 18 j 01:34	0° \mathbb{X}		opposition	859 Jan 24 j 14:54	8° \mathbb{Q} 59'19	4°34'05
	854 Jan 28 j 03:54	0° \mathbb{B}		greatest brilliancy	859 Jan 24 j 15:03	8° \mathbb{Q} 59'10	-1.2m
	854 Mar 09 j 05:38	0° \approx		min. Earth dist.	859 Jan 24 j 22:41	8° \mathbb{Q} 51'33	0.67685 AU
	854 Apr 18 j 00:40	0° \mathbb{H}			859 Feb 22 j 22:01	30° \mathbb{R} \mathbb{B}	
	854 May 28 j 18:29	0° \mathbb{Y}		direct	859 Mar 06 j 11:33	29° \mathbb{B} 09'00	
	854 Jul 11 j 23:59	0° \mathbb{B}			859 Mar 18 j 12:33	0° \mathbb{Q}	
	854 Sep 10 j 21:46	0° \mathbb{H}			859 Jun 04 j 06:06	0° \mathbb{M}	
retrograde	854 Oct 04 j 09:58	3° \mathbb{H} 36'38			859 Jul 25 j 03:49	0° \mathbb{A}	
asc. node	854 Oct 17 j 14:42	2° \mathbb{H} 20'38		desc. node	859 Aug 10 j 05:45	10° \mathbb{A} 23'00	
	854 Oct 26 j 20:26	30° \mathbb{R} \mathbb{B}			859 Sep 08 j 04:49	0° \mathbb{M}	
min. Earth dist.	854 Nov 04 j 22:24	26° \mathbb{B} 50'16	0.54310 AU		859 Oct 19 j 18:45	0° \mathbb{X}	
greatest brilliancy	854 Nov 11 j 13:02	24° \mathbb{B} 18'09	-1.9m		859 Nov 28 j 03:23	0° \mathbb{B}	
opposition	854 Nov 12 j 01:15	24° \mathbb{B} 06'25	1°12'16	evening set	859 Dec 18 j 05:58	15° \mathbb{B} 43'48	
direct	854 Dec 17 j 15:30	16° \mathbb{B} 09'19			860 Jan 05 j 08:00	0° \approx	
	855 Feb 09 j 14:49	0° \mathbb{H}			860 Feb 12 j 08:37	0° \mathbb{H}	
	855 Apr 10 j 00:07	0° \mathbb{B}					
	855 May 31 j 18:26	0° \mathbb{Q}		conjunction	860 Feb 23 j 12:20	8° \mathbb{H} 43'11	0°-57'-25
	855 Jul 19 j 12:29	0° \mathbb{M}		minimum elong	860 Feb 23 j 15:03	8° \mathbb{H} 48'29	0°57'26
	855 Sep 03 j 19:20	0° \mathbb{A}			860 Mar 22 j 03:11	0° \mathbb{Y}	
evening set	855 Sep 05 j 01:34	0° \mathbb{A} 50'19		max. Earth dist.	860 Apr 14 j 18:32	17° \mathbb{Y} 45'55	2.41129 AU
max. Earth dist.	855 Sep 22 j 15:31	12° \mathbb{A} 40'56	2.54983 AU	morning rise	860 May 01 j 09:11	29° \mathbb{Y} 57'48	
	855 Oct 17 j 16:59	0° \mathbb{M}			860 May 01 j 10:24	0° \mathbb{B}	
				asc. node	860 Jun 08 j 11:53	26° \mathbb{B} 59'37	
conjunction	855 Oct 23 j 12:44	4° \mathbb{M} 05'58	0°07'52		860 Jun 12 j 20:31	0° \mathbb{H}	
minimum elong	855 Oct 23 j 13:05	4° \mathbb{M} 06'34	0°07'51		860 Jul 27 j 19:51	0° \mathbb{B}	
behind sun begin	855 Oct 22 j 18:23	3° \mathbb{M} 33'36			860 Sep 14 j 01:24	0° \mathbb{Q}	
behind sun end	855 Oct 24 j 07:46	4° \mathbb{M} 39'35			860 Nov 07 j 13:12	0° \mathbb{M}	
desc. node	855 Nov 05 j 07:43	13° \mathbb{M} 12'02		retrograde	861 Jan 19 j 08:55	22° \mathbb{M} 12'18	
	855 Nov 28 j 10:51	0° \mathbb{X}		opposition	861 Feb 27 j 07:27	13° \mathbb{M} 14'24	3°58'35
morning rise	855 Dec 14 j 09:26	11° \mathbb{X} 49'05		greatest brilliancy	861 Feb 28 j 01:43	12° \mathbb{M} 56'37	-1.3m
	856 Jan 07 j 11:32	0° \mathbb{B}		min. Earth dist.	861 Mar 03 j 12:27	11° \mathbb{M} 36'09	0.64695 AU
	856 Feb 15 j 10:00	0° \approx		direct	861 Apr 09 j 17:47	3° \mathbb{M} 13'02	
	856 Mar 25 j 00:55	0° \mathbb{H}		desc. node	861 Jun 27 j 04:19	29° \mathbb{M} 31'45	
	856 May 03 j 06:17	0° \mathbb{Y}			861 Jun 28 j 01:02	0° \mathbb{A}	
	856 Jun 13 j 05:22	0° \mathbb{B}			861 Aug 16 j 02:34	0° \mathbb{M}	
	856 Jul 27 j 16:32	0° \mathbb{H}			861 Sep 27 j 21:06	0° \mathbb{X}	
asc. node	856 Sep 03 j 14:39	22° \mathbb{H} 15'38			861 Nov 06 j 15:34	0° \mathbb{B}	
	856 Sep 19 j 03:53	0° \mathbb{B}			861 Dec 15 j 01:00	0° \approx	
retrograde	856 Nov 10 j 22:22	14° \mathbb{B} 17'29			862 Jan 22 j 06:42	0° \mathbb{H}	
min. Earth dist.	856 Dec 17 j 11:01	5° \mathbb{B} 45'18	0.64070 AU	evening set	862 Feb 26 j 03:26	26° \mathbb{H} 49'21	
greatest brilliancy	856 Dec 20 j 07:34	4° \mathbb{B} 36'44	-1.4m		862 Mar 02 j 08:15	0° \mathbb{Y}	
opposition	856 Dec 21 j 00:13	4° \mathbb{B} 20'03	3°47'10		862 Apr 11 j 23:32	0° \mathbb{B}	
	857 Jan 01 j 10:56	30° \mathbb{R} \mathbb{H}		asc. node	862 Apr 26 j 11:33	10° \mathbb{B} 22'00	
direct	857 Jan 28 j 21:42	25° \mathbb{H} 08'47					
	857 Feb 28 j 04:23	0° \mathbb{B}		conjunction	862 Apr 28 j 20:09	12° \mathbb{B} 02'10	0°01'30
	857 May 07 j 05:43	0° \mathbb{Q}		minimum elong	862 Apr 28 j 20:06	12° \mathbb{B} 02'03	0°01'30
	857 Jun 28 j 11:19	0° \mathbb{M}		behind sun begin	862 Apr 27 j 19:50	11° \mathbb{B} 19'10	
	857 Aug 14 j 20:21	0° \mathbb{A}		behind sun end	862 Apr 29 j 20:22	12° \mathbb{B} 44'54	
desc. node	857 Sep 22 j 06:45	26° \mathbb{A} 04'19			862 May 24 j 15:15	0° \mathbb{H}	
	857 Sep 27 j 21:10	0° \mathbb{M}		max. Earth dist.	862 Jun 02 j 22:00	6° \mathbb{H} 20'12	2.54329 AU
evening set	857 Oct 19 j 03:57	15° \mathbb{M} 12'40		morning rise	862 Jun 23 j 09:45	20° \mathbb{H} 06'02	
max. Earth dist.	857 Nov 05 j 01:34	27° \mathbb{M} 36'16	2.42479 AU		862 Jul 08 j 09:51	0° \mathbb{B}	
	857 Nov 08 j 07:00	0° \mathbb{X}			862 Aug 24 j 05:40	0° \mathbb{Q}	
					862 Oct 12 j 07:33	0° \mathbb{M}	
conjunction	857 Dec 14 j 13:46	27° \mathbb{X} 31'07	0°-48'-3		862 Dec 04 j 13:23	0° \mathbb{A}	
minimum elong	857 Dec 14 j 11:24	27° \mathbb{X} 26'33	0°48'01	retrograde	863 Mar 03 j 00:44	29° \mathbb{A} 56'21	
	857 Dec 17 j 18:52	0° \mathbb{B}		opposition	863 Apr 08 j 11:26	22° \mathbb{A} 09'05	1°39'50
	858 Jan 25 j 04:09	0° \approx		greatest brilliancy	863 Apr 09 j 05:10	21° \mathbb{A} 52'51	-1.8m
morning rise	858 Feb 18 j 00:25	18° \approx 46'18		min. Earth dist.	863 Apr 16 j 03:03	19° \mathbb{A} 20'59	0.55377 AU

desc. node	863 May 15 j 03:58	12°♊48'42		max. Earth dist.	868 Aug 16 j 06:51	1°♎29'59	2.65837 AU
direct	863 May 18 j 11:25	12°♊44'16					
	863 Jul 15 j 04:36	0°♌		conjunction	868 Aug 28 j 19:44	9°♎34'49	1°00'46
	863 Sep 02 j 16:29	0°♍		minimum elong	868 Aug 28 j 20:41	9°♎36'22	1°00'46
	863 Oct 14 j 13:48	0°♎			868 Sep 29 j 01:34	0°♏	
	863 Nov 23 j 01:07	0°♐		morning rise	868 Oct 12 j 16:18	9°♏02'22	
	864 Jan 01 j 02:23	0°♑			868 Nov 12 j 16:47	0°♐	
	864 Feb 09 j 22:31	0°♒			868 Dec 25 j 19:27	0°♑	
asc. node	864 Mar 13 j 09:44	23°♑38'39		desc. node	869 Jan 04 j 01:16	6°♑33'35	
	864 Mar 22 j 07:52	0°♒			869 Feb 05 j 14:28	0°♑	
evening set	864 Apr 23 j 14:01	22°♒28'28			869 Mar 18 j 11:36	0°♐	
	864 May 04 j 15:06	0°♓			869 Apr 28 j 06:40	0°♑	
					869 Jun 09 j 17:22	0°♒	
conjunction	864 Jun 14 j 21:09	27°♓27'42	0°49'44		869 Jul 29 j 13:09	0°♒	
minimum elong	864 Jun 14 j 19:40	27°♓25'18	0°49'43	retrograde	869 Sep 16 j 17:48	14°♒09'52	
	864 Jun 18 j 18:18	0°♓		min. Earth dist.	869 Oct 16 j 02:24	8°♒13'53	0.49266 AU
max. Earth dist.	864 Jun 30 j 21:24	7°♓53'20	2.63543 AU	opposition	869 Oct 24 j 02:59	5°♒17'49	0°-32'-2
morning rise	864 Aug 01 j 22:01	28°♓27'53		greatest brilliancy	869 Oct 23 j 21:05	5°♒23'12	-2.2m
	864 Aug 04 j 07:49	0°♑		asc. node	869 Nov 03 j 07:25	1°♒49'15	
	864 Sep 20 j 20:10	0°♒			869 Nov 10 j 02:25	30°♒♑	
	864 Nov 08 j 04:03	0°♓		direct	869 Nov 26 j 23:46	28°♑04'15	
	864 Dec 28 j 01:52	0°♌			869 Dec 14 j 20:43	0°♒	
	865 Feb 21 j 03:33	0°♍			870 Feb 25 j 03:11	0°♓	
desc. node	865 Apr 01 j 02:53	15°♍52'26			870 Apr 19 j 09:10	0°♓	
retrograde	865 Apr 30 j 17:45	20°♍41'01			870 Jun 08 j 11:01	0°♑	
opposition	865 Jun 01 j 21:32	14°♍51'33	-3°-30'-53		870 Jul 26 j 14:12	0°♒	
greatest brilliancy	865 Jun 03 j 04:27	14°♍27'49	-2.5m	evening set	870 Aug 20 j 16:26	16°♒08'55	
min. Earth dist.	865 Jun 09 j 07:37	12°♍35'48	0.42393 AU		870 Sep 10 j 17:23	0°♓	
direct	865 Jul 06 j 11:55	7°♍55'52		max. Earth dist.	870 Sep 10 j 22:22	0°♓08'18	2.58988 AU
	865 Sep 08 j 09:57	0°♎					
	865 Oct 24 j 21:44	0°♐		conjunction	870 Oct 06 j 14:51	17°♓28'23	0°27'09
	865 Dec 06 j 07:10	0°♑		minimum elong	870 Oct 06 j 15:50	17°♓30'03	0°27'09
	866 Jan 17 j 09:49	0°♒			870 Oct 24 j 17:54	0°♌	
asc. node	866 Jan 29 j 08:34	8°♒24'26		desc. node	870 Nov 21 j 23:51	20°♌01'20	
	866 Mar 01 j 12:43	0°♒		morning rise	870 Nov 24 j 07:53	21°♌42'16	
	866 Apr 15 j 03:26	0°♓			870 Dec 05 j 18:18	0°♍	
	866 May 31 j 03:35	0°♓			871 Jan 15 j 03:20	0°♎	
evening set	866 Jun 06 j 20:21	4°♓18'34			871 Feb 23 j 10:07	0°♐	
	866 Jul 17 j 01:01	0°♑			871 Apr 03 j 08:40	0°♑	
					871 May 12 j 22:28	0°♒	
conjunction	866 Jul 24 j 03:44	4°♑31'48	1°08'52		871 Jun 23 j 12:49	0°♒	
minimum elong	866 Jul 24 j 03:26	4°♑31'20	1°08'51		871 Aug 08 j 22:50	0°♓	
max. Earth dist.	866 Jul 24 j 17:51	4°♑54'15	2.67411 AU	asc. node	871 Sep 21 j 06:02	21°♓42'56	
	866 Sep 02 j 03:00	0°♒		retrograde	871 Oct 28 j 18:49	29°♓48'46	
morning rise	866 Sep 07 j 00:00	3°♒06'57		min. Earth dist.	871 Dec 02 j 11:40	21°♓53'32	0.60927 AU
	866 Oct 18 j 19:46	0°♓		opposition	871 Dec 07 j 12:16	19°♓53'46	3°03'06
	866 Dec 03 j 21:57	0°♌		greatest brilliancy	871 Dec 06 j 16:51	20°♓13'05	-1.5m
	867 Jan 18 j 12:28	0°♍		direct	872 Jan 14 j 06:39	11°♓06'12	
desc. node	867 Feb 17 j 02:01	19°♍28'52			872 Mar 20 j 12:02	0°♓	
	867 Mar 05 j 03:10	0°♎			872 May 16 j 20:00	0°♑	
	867 Apr 21 j 06:17	0°♐			872 Jul 06 j 06:05	0°♒	
	867 Jun 18 j 06:29	0°♑			872 Aug 22 j 01:52	0°♓	
retrograde	867 Jul 20 j 00:48	6°♑14'36		evening set	872 Sep 30 j 08:21	26°♓43'37	
min. Earth dist.	867 Aug 16 j 06:01	1°♑46'48	0.38127 AU		872 Oct 05 j 00:20	0°♌	
greatest brilliancy	867 Aug 19 j 10:09	0°♑54'05	-2.8m	desc. node	872 Oct 08 j 22:17	2°♌45'45	
opposition	867 Aug 20 j 09:41	0°♑37'45	-6°-21'-7	max. Earth dist.	872 Oct 14 j 20:08	6°♌57'35	2.47596 AU
	867 Aug 22 j 16:22	30°♒♐			872 Nov 15 j 12:31	0°♍	
direct	867 Sep 18 j 23:49	25°♐35'09					
	867 Oct 15 j 23:11	0°♑		conjunction	872 Nov 21 j 20:05	4°♍41'45	0°-26'-58
asc. node	867 Dec 17 j 08:12	29°♑51'49		minimum elong	872 Nov 21 j 18:39	4°♍39'04	0°26'59
	867 Dec 17 j 13:50	0°♒			872 Dec 25 j 04:44	0°♎	
	868 Feb 05 j 00:56	0°♒		morning rise	873 Jan 20 j 06:05	20°♎12'42	
	868 Mar 23 j 22:51	0°♓			873 Feb 01 j 18:20	0°♐	
	868 May 10 j 19:58	0°♓			873 Mar 12 j 01:17	0°♑	
	868 Jun 27 j 16:14	0°♑		greatest brilliancy	873 Apr 08 j 14:15	21°♑19'49	1.2m
evening set	868 Jul 14 j 04:16	10°♑24'36			873 Apr 19 j 22:53	0°♒	
	868 Aug 13 j 22:46	0°♒			873 May 30 j 09:29	0°♒	

	873 Jul 12 j 11:21	0°♊			878 May 27 j 03:56	0°♎
asc. node	873 Aug 08 j 05:34	17°♊20'13		desc. node	878 May 31 j 19:24	1°♎21'19
	873 Aug 29 j 03:32	0°♋			878 Jul 29 j 23:29	0°♌
	873 Oct 30 j 18:26	0°♌			878 Sep 13 j 05:20	0°♍
retrograde	873 Dec 02 j 05:13	5°♌49'04			878 Oct 23 j 21:34	0°♎
	874 Jan 01 j 02:25	30°♌♋			878 Dec 01 j 18:32	0°♏
min. Earth dist.	874 Jan 10 j 05:32	26°♋28'10	0.67056 AU		879 Jan 09 j 09:05	0°♐
opposition	874 Jan 11 j 10:13	25°♋59'26	4°26'04		879 Feb 17 j 19:24	0°♑
greatest brilliancy	874 Jan 11 j 02:53	26°♋06'47	-1.3m		879 Mar 30 j 19:24	0°♒
direct	874 Feb 20 j 16:06	16°♋21'02		asc. node	879 Mar 31 j 02:22	0°♒12'26
	874 Apr 16 j 08:47	0°♌		evening set	879 Apr 04 j 05:00	3°♒08'20
	874 Jun 14 j 06:06	0°♍			879 May 12 j 18:32	0°♊
	874 Aug 02 j 06:27	0°♎				
desc. node	874 Aug 26 j 21:57	16°♎18'36		conjunction	879 May 29 j 16:27	11°♊26'35 0°34'26
	874 Sep 15 j 18:51	0°♌		minimum elong	879 May 29 j 14:59	11°♊24'08 0°34'26
	874 Oct 27 j 05:46	0°♍		max. Earth dist.	879 Jun 21 j 14:43	26°♊40'09 2.60534 AU
evening set	874 Nov 22 j 13:44	19°♍55'49			879 Jun 26 j 16:30	0°♋
	874 Dec 05 j 14:47	0°♎		morning rise	879 Jul 19 j 01:09	14°♋31'21
	875 Jan 12 j 20:24	0°♏			879 Aug 12 j 06:06	0°♌
					879 Sep 29 j 04:05	0°♍
conjunction	875 Jan 25 j 12:11	10°♏00'05	-1°-5'-1		879 Nov 17 j 17:19	0°♎
minimum elong	875 Jan 25 j 12:10	10°♏00'04	1°05'02		880 Jan 10 j 03:38	0°♌
max. Earth dist.	875 Feb 08 j 14:44	21°♏08'05	2.37182 AU	retrograde	880 Apr 04 j 14:30	28°♌40'10
	875 Feb 19 j 21:19	0°♐		desc. node	880 Apr 17 j 18:11	27°♌34'19
	875 Mar 30 j 15:10	0°♑		opposition	880 May 08 j 13:27	21°♌59'10 -1°-6'-36
morning rise	875 Apr 05 j 20:55	4°♑44'23		greatest brilliancy	880 May 09 j 02:33	21°♌48'08 -2.2m
	875 May 09 j 21:08	0°♒		min. Earth dist.	880 May 16 j 23:46	19°♌09'10 0.47447 AU
	875 Jun 21 j 07:29	0°♊		direct	880 Jun 14 j 21:47	13°♌47'12
asc. node	875 Jun 26 j 03:49	3°♊18'50			880 Aug 07 j 18:08	0°♍
	875 Aug 05 j 13:46	0°♋			880 Sep 25 j 07:03	0°♎
	875 Sep 24 j 00:40	0°♌			880 Nov 06 j 02:28	0°♏
	875 Nov 24 j 04:44	0°♍			880 Dec 16 j 12:33	0°♐
retrograde	876 Jan 05 j 23:42	9°♍08'48			881 Jan 26 j 09:28	0°♑
opposition	876 Feb 14 j 12:20	29°♌51'55	4°22'13	asc. node	881 Feb 15 j 01:33	14°♑07'10
	876 Feb 14 j 04:06	30°♌♋			881 Mar 09 j 14:58	0°♒
greatest brilliancy	876 Feb 15 j 00:14	29°♌40'11	-1.3m		881 Apr 22 j 14:00	0°♊
min. Earth dist.	876 Feb 17 j 05:02	28°♌48'12	0.66672 AU	evening set	881 May 21 j 15:41	19°♊14'33
direct	876 Mar 26 j 21:57	19°♌50'55			881 Jun 07 j 03:41	0°♋
	876 May 11 j 04:17	0°♍				
	876 Jul 09 j 03:44	0°♎		conjunction	881 Jul 09 j 11:25	20°♋49'12 1°04'49
desc. node	876 Jul 13 j 21:12	2°♎50'13		minimum elong	881 Jul 09 j 10:34	20°♋47'51 1°04'48
	876 Aug 24 j 22:56	0°♌		max. Earth dist.	881 Jul 15 j 19:36	24°♋52'32 2.66531 AU
	876 Oct 06 j 01:52	0°♍			881 Jul 23 j 20:15	0°♌
	876 Nov 14 j 14:29	0°♎		morning rise	881 Aug 24 j 04:15	19°♌56'33
greatest brilliancy	876 Nov 29 j 23:50	12°♎00'08	1.2m		881 Sep 09 j 00:05	0°♍
	876 Dec 22 j 20:32	0°♏			881 Oct 26 j 03:59	0°♎
	877 Jan 29 j 22:45	0°♐			881 Dec 12 j 06:49	0°♌
evening set	877 Jan 30 j 01:44	0°♐05'51			882 Jan 28 j 20:56	0°♍
	877 Mar 09 j 20:08	0°♑		desc. node	882 Mar 05 j 17:48	21°♍52'57
					882 Mar 19 j 15:03	0°♎
conjunction	877 Apr 05 j 19:09	20°♑09'04	0°-23'-19		882 May 21 j 16:39	0°♏
minimum elong	877 Apr 05 j 20:52	20°♑12'14	0°23'18	retrograde	882 Jun 18 j 19:38	4°♏40'20
	877 Apr 19 j 06:47	0°♒			882 Jul 17 j 21:25	30°♒♋
asc. node	877 May 13 j 02:17	17°♒00'08		opposition	882 Jul 18 j 23:55	29°♒42'23 -6°-44'-59
max. Earth dist.	877 May 19 j 09:04	21°♒24'27	2.49448 AU	greatest brilliancy	882 Jul 19 j 09:25	29°♒36'04 -2.9m
	877 May 31 j 18:36	0°♊		min. Earth dist.	882 Jul 20 j 04:30	29°♒23'22 0.37526 AU
morning rise	877 Jun 04 j 22:22	2°♊51'08		direct	882 Aug 18 j 05:08	24°♒38'13
	877 Jul 15 j 12:38	0°♋			882 Sep 16 j 12:32	0°♌
	877 Aug 31 j 16:16	0°♌			882 Nov 14 j 09:38	0°♐
	877 Oct 21 j 00:11	0°♍			882 Dec 31 j 09:12	0°♑
	877 Dec 18 j 12:05	0°♎		asc. node	883 Jan 02 j 23:33	1°♑42'02
retrograde	878 Feb 13 j 03:22	14°♎33'49			883 Feb 15 j 02:05	0°♒
opposition	878 Mar 22 j 18:27	6°♎14'16	2°49'14		883 Apr 02 j 06:14	0°♊
greatest brilliancy	878 Mar 23 j 16:56	5°♎53'00	-1.6m		883 May 19 j 05:05	0°♋
min. Earth dist.	878 Mar 29 j 04:44	3°♎48'31	0.59727 AU	evening set	883 Jun 30 j 14:48	26°♋51'08
	878 Apr 09 j 08:31	30°♒♍			883 Jul 05 j 14:07	0°♌
direct	878 May 02 j 15:33	26°♒26'31		max. Earth dist.	883 Aug 08 j 00:42	21°♌14'41 2.67094 AU

conjunction	883 Aug 15 j 13:45	26°♂03'50	1°07'00			888 Jul 21 j 09:57	0°♂	
minimum elong	883 Aug 15 j 14:18	26°♂04'43	1°06'59	asc. node		888 Aug 24 j 20:23	21°♂13'54	
	883 Aug 21 j 17:16	0°♂				888 Sep 09 j 16:57	0°♂	
morning rise	883 Sep 29 j 01:22	24°♂48'08		retrograde		888 Nov 18 j 19:44	22°♂37'06	
	883 Oct 06 j 23:49	0°♂		min. Earth dist.		888 Dec 26 j 06:42	13°♂46'09	0.65424 AU
	883 Nov 21 j 01:43	0°♂		opposition		888 Dec 28 j 23:38	12°♂41'04	4°05'37
	884 Jan 03 j 21:56	0°♂		greatest brilliancy		888 Dec 28 j 09:47	12°♂54'57	-1.3m
desc. node	884 Jan 21 j 16:47	12°♂23'22		direct		889 Feb 06 j 09:41	3°♂18'47	
	884 Feb 15 j 17:01	0°♂				889 Apr 30 j 02:08	0°♂	
	884 Mar 28 j 21:22	0°♂				889 Jun 23 j 00:58	0°♂	
	884 May 10 j 14:42	0°♂				889 Aug 09 j 22:34	0°♂	
	884 Jun 26 j 14:25	0°♂		desc. node		889 Sep 12 j 13:59	22°♂37'53	
retrograde	884 Aug 27 j 11:57	21°♂13'58				889 Sep 23 j 03:47	0°♂	
min. Earth dist.	884 Sep 23 j 22:45	16°♂08'13	0.44085 AU	evening set		889 Oct 30 j 18:37	27°♂09'35	
opposition	884 Oct 01 j 23:19	13°♂25'53	-2°-46'-13			889 Nov 03 j 14:26	0°♂	
greatest brilliancy	884 Sep 30 j 21:00	13°♂48'08	-2.5m	max. Earth dist.		889 Nov 22 j 17:27	14°♂23'15	2.39854 AU
direct	884 Nov 02 j 21:58	7°♂05'23				889 Dec 13 j 01:38	0°♂	
asc. node	884 Nov 19 j 23:02	8°♂52'48						
	885 Jan 13 j 08:29	0°♂		conjunction		889 Dec 28 j 18:18	12°♂12'55	0°-57'-26
	885 Mar 08 j 12:41	0°♂		minimum elong		889 Dec 28 j 16:05	12°♂08'33	0°57'26
	885 Apr 27 j 20:24	0°♂				890 Jan 20 j 09:41	0°♂	
	885 Jun 15 j 19:42	0°♂				890 Feb 27 j 11:55	0°♂	
	885 Aug 02 j 12:36	0°♂		morning rise		890 Mar 07 j 01:15	5°♂54'40	
evening set	885 Aug 05 j 21:30	2°♂09'21				890 Apr 07 j 05:51	0°♂	
max. Earth dist.	885 Aug 31 j 10:22	18°♂40'58	2.62265 AU			890 May 17 j 11:36	0°♂	
	885 Sep 17 j 14:24	0°♂				890 Jun 29 j 00:09	0°♂	
				asc. node		890 Jul 12 j 19:49	9°♂19'26	
conjunction	885 Sep 20 j 22:21	2°♂13'00	0°43'07			890 Aug 13 j 18:54	0°♂	
minimum elong	885 Sep 20 j 23:33	2°♂15'00	0°43'07			890 Oct 04 j 09:41	0°♂	
	885 Oct 31 j 19:20	0°♂		retrograde		890 Dec 23 j 06:50	26°♂24'24	
morning rise	885 Nov 06 j 13:09	3°♂59'39		opposition		891 Feb 01 j 04:55	16°♂52'09	4°33'11
desc. node	885 Dec 08 j 16:00	26°♂45'10		greatest brilliancy		891 Feb 01 j 09:24	16°♂47'43	-1.2m
	885 Dec 13 j 04:05	0°♂		min. Earth dist.		891 Feb 02 j 09:07	16°♂24'08	0.67610 AU
	886 Jan 22 j 23:41	0°♂		direct		891 Mar 14 j 07:31	6°♂56'44	
	886 Mar 03 j 17:45	0°♂				891 May 27 j 16:35	0°♂	
	886 Apr 12 j 03:45	0°♂				891 Jul 19 j 12:47	0°♂	
	886 May 22 j 08:13	0°♂		desc. node		891 Jul 31 j 12:47	7°♂34'57	
	886 Jul 04 j 04:38	0°♂				891 Sep 03 j 02:50	0°♂	
	886 Aug 24 j 12:49	0°♂				891 Oct 14 j 21:07	0°♂	
asc. node	886 Oct 07 j 22:29	13°♂41'54				891 Nov 23 j 07:13	0°♂	
retrograde	886 Oct 13 j 15:54	13°♂55'28				891 Dec 31 j 12:19	0°♂	
min. Earth dist.	886 Nov 15 j 08:40	6°♂42'43	0.56891 AU	evening set		892 Jan 02 j 18:38	1°♂47'21	
opposition	886 Nov 21 j 18:28	4°♂12'43	1°59'36			892 Feb 07 j 13:07	0°♂	
greatest brilliancy	886 Nov 21 j 01:17	4°♂29'31	-1.7m					
	886 Dec 03 j 08:51	30°♂		conjunction		892 Mar 10 j 10:53	24°♂44'53	0°-47'-7
direct	886 Dec 28 j 04:43	25°♂55'22		minimum elong		892 Mar 10 j 13:58	24°♂50'48	0°47'06
	887 Jan 24 j 06:49	0°♂				892 Mar 17 j 08:04	0°♂	
	887 Apr 03 j 04:14	0°♂				892 Apr 26 j 15:35	0°♂	
	887 May 26 j 10:00	0°♂		max. Earth dist.		892 Apr 29 j 23:08	2°♂24'16	2.44090 AU
	887 Jul 14 j 16:37	0°♂		morning rise		892 May 14 j 18:00	13°♂00'29	
	887 Aug 30 j 04:06	0°♂		asc. node		892 May 29 j 19:46	23°♂36'57	
evening set	887 Sep 14 j 04:53	10°♂04'36				892 Jun 08 j 00:53	0°♂	
max. Earth dist.	887 Sep 30 j 04:29	21°♂00'23	2.52507 AU			892 Jul 22 j 20:27	0°♂	
	887 Oct 13 j 02:32	0°♂				892 Sep 08 j 12:57	0°♂	
desc. node	887 Oct 26 j 15:11	9°♂34'37				892 Oct 30 j 22:46	0°♂	
						893 Jan 19 j 20:01	0°♂	
conjunction	887 Nov 02 j 20:10	14°♂44'35	0°-4'-29	retrograde		893 Jan 28 j 00:08	0°♂23'48	
minimum elong	887 Nov 02 j 19:58	14°♂44'13	0°04'30			893 Feb 04 j 23:31	30°♂	
behind sun begin	887 Nov 01 j 22:50	14°♂06'14		opposition		893 Mar 07 j 13:02	21°♂38'09	3°37'51
behind sun end	887 Nov 03 j 17:06	15°♂22'15		greatest brilliancy		893 Mar 08 j 09:50	21°♂18'04	-1.4m
	887 Nov 23 j 18:38	0°♂		min. Earth dist.		893 Mar 12 j 13:39	19°♂41'46	0.63198 AU
morning rise	887 Dec 27 j 00:18	24°♂54'54		direct		893 Apr 17 j 21:04	11°♂39'05	
	888 Jan 02 j 16:17	0°♂		desc. node		893 Jun 17 j 11:37	29°♂05'56	
	888 Feb 10 j 11:14	0°♂				893 Jun 19 j 07:41	0°♂	
	888 Mar 19 j 22:27	0°♂				893 Aug 09 j 23:37	0°♂	
	888 Apr 27 j 23:44	0°♂				893 Sep 22 j 10:21	0°♂	
	888 Jun 07 j 16:05	0°♂				893 Nov 01 j 11:07	0°♂	

	893 Dec 09 j 23:47	0°♊		conjunction	898 Aug 01 j 08:23	12°♌40'25	1°09'19
	894 Jan 17 j 07:37	0°♋		minimum elong	898 Aug 01 j 08:26	12°♌40'29	1°09'19
	894 Feb 25 j 11:12	0°♌			898 Aug 28 j 12:11	0°♍	
evening set	894 Mar 12 j 07:29	11°♌05'36		morning rise	898 Sep 14 j 22:22	11°♍10'33	
	894 Apr 07 j 04:32	0°♍			898 Oct 14 j 01:00	0°♎	
asc. node	894 Apr 16 j 18:18	6°♍51'14			898 Nov 28 j 17:23	0°♏	
					899 Jan 12 j 14:02	0°♐	
conjunction	894 May 10 j 15:50	23°♍37'50	0°14'40	desc. node	899 Feb 07 j 09:48	17°♐27'19	
minimum elong	894 May 10 j 15:01	23°♍36'24	0°14'39		899 Feb 25 j 21:46	0°♑	
behind sun begin	894 May 10 j 06:06	23°♍20'58			899 Apr 11 j 11:09	0°♒	
behind sun end	894 May 10 j 23:55	23°♍51'49			899 May 29 j 04:08	0°♓	
	894 May 19 j 21:42	0°♎		retrograde	899 Aug 04 j 15:33	23°♓56'32	
max. Earth dist.	894 Jun 10 j 02:42	14°♎22'36	2.56751 AU	min. Earth dist.	899 Aug 31 j 06:09	19°♓25'43	0.39712 AU
morning rise	894 Jul 03 j 02:47	29°♎37'43		greatest brilliancy	899 Sep 05 j 03:19	17°♓58'28	-2.7m
	894 Jul 03 j 16:22	0°♏		opposition	899 Sep 06 j 11:28	17°♓34'19	-5°-14'-3
	894 Aug 19 j 08:20	0°♐		direct	899 Oct 06 j 18:26	12°♓08'54	
	894 Oct 06 j 21:06	0°♑			899 Dec 05 j 15:50	0°♔	
	894 Nov 27 j 08:26	0°♒		asc. node	899 Dec 07 j 14:29	0°♕57'37	
	895 Jan 27 j 23:15	0°♓			900 Jan 28 j 18:01	0°♖	
retrograde	895 Mar 14 j 07:29	9°♓58'14			900 Mar 18 j 04:07	0°♗	
opposition	895 Apr 18 j 22:39	2°♓32'09	0°47'43		900 May 05 j 18:03	0°♘	
greatest brilliancy	895 Apr 19 j 08:31	2°♓23'19	-1.9m		900 Jun 22 j 22:38	0°♙	
	895 Apr 26 j 00:14	30°♒♊		evening set	900 Jul 22 j 10:23	18°♙34'46	
min. Earth dist.	895 Apr 27 j 01:26	29°♒37'49	0.52682 AU		900 Aug 09 j 08:27	0°♚	
desc. node	895 May 05 j 10:07	26°♒55'20		max. Earth dist.	900 Aug 21 j 18:12	7°♚58'36	2.64802 AU
direct	895 May 28 j 04:45	23°♒27'01					
	895 Jun 30 j 06:11	0°♓		conjunction	900 Sep 06 j 01:49	17°♚55'09	0°55'22
	895 Aug 25 j 23:51	0°♔		minimum elong	900 Sep 06 j 02:56	17°♚56'59	0°55'21
	895 Oct 08 j 05:22	0°♕			900 Sep 24 j 11:02	0°♛	
	895 Nov 17 j 06:38	0°♖		morning rise	900 Oct 21 j 08:50	18°♛00'38	
	895 Dec 26 j 16:17	0°♗			900 Nov 07 j 22:39	0°♜	
	896 Feb 04 j 18:45	0°♘			900 Dec 20 j 18:49	0°♝	
asc. node	896 Mar 03 j 17:19	20°♘17'16		desc. node	900 Dec 25 j 08:25	3°♝15'46	
	896 Mar 17 j 09:18	0°♞			901 Jan 31 j 04:43	0°♞	
	896 Apr 29 j 20:29	0°♟			901 Mar 12 j 14:40	0°♟	
evening set	896 May 04 j 05:07	2°♟56'20			901 Apr 21 j 18:26	0°♠	
	896 Jun 14 j 02:17	0°♠			901 Jun 02 j 01:23	0°♡	
					901 Jul 17 j 17:57	0°♢	
conjunction	896 Jun 24 j 02:08	6°♠29'56	0°56'32	retrograde	901 Sep 27 j 02:24	26°♢00'57	
minimum elong	896 Jun 24 j 00:50	6°♠27'49	0°56'31	asc. node	901 Oct 24 j 13:48	20°♢42'45	
max. Earth dist.	896 Jul 06 j 13:03	14°♠32'41	2.64839 AU	min. Earth dist.	901 Oct 27 j 15:02	19°♢36'44	0.52097 AU
	896 Jul 30 j 15:57	0°♣		opposition	901 Nov 04 j 05:17	16°♢45'07	0°31'44
morning rise	896 Aug 10 j 03:17	6°♣40'02		greatest brilliancy	901 Nov 03 j 23:14	16°♢50'50	-2.0m
	896 Sep 16 j 00:10	0°♤		direct	901 Dec 09 j 02:04	9°♢06'08	
	896 Nov 02 j 19:54	0°♥			902 Feb 16 j 03:53	0°♦	
	896 Dec 21 j 11:12	0°♧			902 Apr 13 j 08:39	0°♧	
	897 Feb 10 j 14:56	0°♨			902 Jun 03 j 08:31	0°♩	
desc. node	897 Mar 22 j 09:20	20°♨24'03			902 Jul 21 j 20:31	0°♪	
	897 Apr 15 j 18:50	0°♩		evening set	902 Aug 29 j 09:00	24°♪52'29	
retrograde	897 May 17 j 16:17	5°♩34'37			902 Sep 06 j 02:47	0°♫	
opposition	897 Jun 17 j 17:46	0°♪12'45	-4°-57'-20	max. Earth dist.	902 Sep 17 j 12:40	7°♫38'13	2.56861 AU
	897 Jun 18 j 11:33	30°♨♊					
greatest brilliancy	897 Jun 19 j 01:50	29°♨49'45	-2.7m	conjunction	902 Oct 16 j 01:21	27°♫10'07	0°16'24
min. Earth dist.	897 Jun 23 j 16:03	28°♨31'06	0.40038 AU	minimum elong	902 Oct 16 j 02:01	27°♫11'17	0°16'24
direct	897 Jul 20 j 14:23	24°♨04'42			902 Oct 20 j 02:47	0°♬	
	897 Aug 20 j 02:09	0°♭		desc. node	902 Nov 12 j 06:42	16°♬24'44	
	897 Oct 15 j 10:32	0°♣			902 Dec 01 j 00:30	0°♭	
	897 Nov 29 j 01:59	0°♤		morning rise	902 Dec 05 j 08:24	3°♭10'39	
	898 Jan 11 j 06:56	0°♥			903 Jan 10 j 05:30	0°♧	
asc. node	898 Jan 19 j 16:26	5°♥48'11			903 Feb 18 j 08:00	0°♨	
	898 Feb 24 j 02:02	0°♦			903 Mar 29 j 01:56	0°♩	
	898 Apr 10 j 02:58	0°♧			903 May 07 j 09:53	0°♪	
	898 May 26 j 09:34	0°♨			903 Jun 17 j 13:13	0°♫	
evening set	898 Jun 15 j 15:48	12°♨57'26			903 Aug 01 j 13:30	0°♬	
	898 Jul 12 j 10:15	0°♩		asc. node	903 Sep 11 j 13:55	22°♬56'45	
max. Earth dist.	898 Jul 29 j 23:26	11°♩09'48	2.67535 AU		903 Sep 27 j 14:40	0°♭	
				retrograde	903 Nov 06 j 00:26	8°♭40'54	

min. Earth dist.	903 Dec 11 j 17:46	0°☿24'23	0.62772 AU		908 Nov 09 j 14:07	0°☿	
	903 Dec 12 j 18:16	30°♈II			908 Dec 17 j 22:21	0°♈	
opposition	903 Dec 15 j 22:35	28°♈43'39	3°31'00		909 Jan 25 j 02:06	0°♈	
greatest brilliancy	903 Dec 15 j 04:10	29°♈02'05	-1.5m	evening set	909 Feb 14 j 14:18	15°♈54'46	
direct	904 Jan 23 j 08:01	19°♈42'19			909 Mar 05 j 00:52	0°♈	
	904 Mar 09 j 12:54	0°☿			909 Apr 14 j 12:54	0°♈	
	904 May 10 j 16:11	0°♈					
	904 Jul 01 j 02:51	0°♈		conjunction	909 Apr 19 j 04:45	3°♈21'48	0°-8'-59
	904 Aug 17 j 07:24	0°♈		minimum elong	909 Apr 19 j 05:22	3°♈22'55	0°08'59
desc. node	904 Sep 29 j 05:42	29°♈12'51		behind sun begin	909 Apr 18 j 08:10	2°♈44'45	
	904 Sep 30 j 08:33	0°♈		behind sun end	909 Apr 20 j 02:35	4°♈01'02	
evening set	904 Oct 10 j 18:25	7°♈22'20		asc. node	909 May 03 j 10:54	13°♈32'11	
max. Earth dist.	904 Oct 25 j 19:46	18°♈13'10	2.44764 AU		909 May 27 j 01:18	0°♈	
	904 Nov 10 j 20:31	0°♈		max. Earth dist.	909 May 28 j 00:42	0°♈40'14	2.52212 AU
				morning rise	909 Jun 15 j 16:36	13°♈21'34	
conjunction	904 Dec 04 j 06:49	17°♈36'35	0°-39'-25		909 Jul 10 j 18:09	0°☿	
minimum elong	904 Dec 04 j 04:45	17°♈32'39	0°39'25		909 Aug 26 j 15:30	0°♈	
	904 Dec 20 j 10:57	0°☿			909 Oct 15 j 03:14	0°♈	
greatest brilliancy	905 Jan 24 j 21:59	27°☿37'48	1.2m		909 Dec 08 j 23:49	0°♈	
	905 Jan 27 j 22:25	0°♈		retrograde	910 Feb 23 j 02:03	23°♈36'04	
morning rise	905 Feb 05 j 01:17	6°♈22'54		opposition	910 Apr 01 j 01:44	15°♈33'35	2°11'49
	905 Mar 07 j 03:15	0°♈		greatest brilliancy	910 Apr 01 j 22:26	15°♈14'18	-1.7m
	905 Apr 14 j 22:45	0°♈		min. Earth dist.	910 Apr 08 j 04:52	12°♈54'17	0.57412 AU
	905 May 25 j 06:27	0°♈		direct	910 May 11 j 12:15	5°♈56'36	
	905 Jul 07 j 01:04	0°♈		desc. node	910 May 22 j 02:32	6°♈40'03	
asc. node	905 Jul 29 j 12:23	14°♈50'33			910 Jul 21 j 13:18	0°♈	
	905 Aug 22 j 18:19	0°☿			910 Sep 06 j 20:28	0°♈	
	905 Oct 17 j 21:38	0°♈			910 Oct 18 j 03:57	0°☿	
retrograde	905 Dec 09 j 21:36	13°♈39'54			910 Nov 26 j 08:29	0°♈	
opposition	906 Jan 19 j 00:46	3°♈55'40	4°32'12		911 Jan 04 j 04:11	0°♈	
greatest brilliancy	906 Jan 18 j 21:34	3°♈58'53	-1.2m		911 Feb 12 j 18:45	0°♈	
min. Earth dist.	906 Jan 18 j 16:33	4°♈03'54	0.67527 AU	asc. node	911 Mar 21 j 09:08	26°♈44'19	
	906 Jan 29 j 04:26	30°♈☿			911 Mar 25 j 22:43	0°♈	
direct	906 Feb 28 j 14:52	24°☿10'10		evening set	911 Apr 16 j 01:44	14°♈52'50	
	906 Apr 03 j 05:30	0°♈			911 May 08 j 00:54	0°♈	
	906 Jun 07 j 21:43	0°♈					
	906 Jul 28 j 00:17	0°♈		conjunction	911 Jun 08 j 16:15	21°♈13'06	0°43'50
desc. node	906 Aug 17 j 04:50	13°♈10'03		minimum elong	911 Jun 08 j 14:44	21°♈10'34	0°43'49
	906 Sep 10 j 21:16	0°♈			911 Jun 22 j 00:39	0°☿	
	906 Oct 22 j 11:08	0°♈		max. Earth dist.	911 Jun 27 j 15:12	3°☿39'48	2.62306 AU
	906 Nov 30 j 20:43	0°☿		morning rise	911 Jul 27 j 15:37	23°☿02'45	
evening set	906 Dec 06 j 16:28	4°☿31'45			911 Aug 07 j 13:06	0°♈	
	907 Jan 08 j 02:05	0°♈			911 Sep 24 j 04:42	0°♈	
					911 Nov 11 j 23:33	0°♈	
conjunction	907 Feb 10 j 19:38	26°♈38'01	-1°-2'-35		912 Jan 02 j 02:30	0°♈	
minimum elong	907 Feb 10 j 21:23	26°♈41'28	1°02'34		912 Mar 02 j 05:59	0°♈	
	907 Feb 15 j 02:27	0°♈		desc. node	912 Apr 08 j 01:54	10°♈22'05	
	907 Mar 25 j 19:47	0°♈		retrograde	912 Apr 18 j 17:27	11°♈02'57	
max. Earth dist.	907 Mar 28 j 06:19	1°♈51'24	2.38932 AU	opposition	912 May 21 j 17:33	4°♈49'52	-2°-25'-35
morning rise	907 Apr 21 j 06:44	19°♈53'19		greatest brilliancy	912 May 22 j 18:37	4°♈29'42	-2.4m
	907 May 05 j 01:12	0°♈		min. Earth dist.	912 May 29 j 20:26	2°♈14'09	0.44582 AU
asc. node	907 Jun 16 j 10:49	0°♈02'04			912 Jun 06 j 16:27	30°♈♈	
	907 Jun 16 j 09:37	0°♈		direct	912 Jun 26 j 15:20	27°♈17'30	
	907 Jul 31 j 09:50	0°☿			912 Jul 16 j 21:00	0°♈	
	907 Sep 17 j 23:49	0°♈			912 Sep 16 j 04:23	0°☿	
	907 Nov 13 j 08:11	0°♈			912 Oct 29 j 23:40	0°♈	
retrograde	908 Jan 14 j 03:40	17°♈02'32			912 Dec 10 j 07:48	0°♈	
opposition	908 Feb 22 j 08:47	7°♈55'49	4°09'54		913 Jan 20 j 18:25	0°♈	
greatest brilliancy	908 Feb 23 j 00:27	7°♈40'29	-1.3m	asc. node	913 Feb 05 j 07:21	11°♈03'08	
min. Earth dist.	908 Feb 25 j 21:49	6°♈32'35	0.65698 AU		913 Mar 04 j 09:52	0°♈	
	908 Mar 16 j 18:24	30°♈♈			913 Apr 17 j 15:58	0°♈	
direct	908 Apr 03 j 19:14	27°♈53'51		evening set	913 May 31 j 01:26	28°♈27'39	
	908 Apr 22 j 20:55	0°♈			913 Jun 02 j 10:30	0°☿	
	908 Jul 02 j 07:39	0°♈					
desc. node	908 Jul 04 j 03:07	1°♈02'04		conjunction	913 Jul 17 j 23:13	29°☿12'17	1°07'40
	908 Aug 19 j 08:50	0°♈		minimum elong	913 Jul 17 j 22:41	29°☿11'27	1°07'39
	908 Sep 30 j 21:33	0°♈			913 Jul 19 j 05:09	0°♈	

max. Earth dist.	913 Jul 21 j 02:46	1°Ω12'41	2.67132 AU	min. Earth dist.	918 Nov 25 j 07:30	16°Π01'47	0.59224 AU
morning rise	913 Sep 01 j 02:51	27°Ω57'27		opposition	918 Nov 30 j 22:51	13°Π48'05	2°39'14
	913 Sep 04 j 07:45	0°Π		greatest brilliancy	918 Nov 30 j 03:27	14°Π07'17	-1.6m
	913 Oct 21 j 05:21	0°Δ		direct	919 Jan 07 j 03:06	5°Π13'05	
	913 Dec 06 j 17:37	0°Π			919 Mar 26 j 10:31	0°Σ	
	914 Jan 22 j 02:38	0°♂			919 May 20 j 19:07	0°Ω	
desc. node	914 Feb 24 j 00:56	21°♂06'26			919 Jul 09 j 17:37	0°Π	
	914 Mar 10 j 03:24	0°Σ			919 Aug 25 j 11:01	0°Δ	
	914 Apr 29 j 17:28	0°≈		evening set	919 Sep 23 j 19:01	19°Δ48'37	
retrograde	914 Jul 06 j 19:21	22°≈48'08			919 Oct 08 j 10:42	0°Π	
min. Earth dist.	914 Aug 04 j 10:41	18°≈07'42	0.37459 AU	max. Earth dist.	919 Oct 08 j 17:13	0°Π11'27	2.49850 AU
opposition	914 Aug 06 j 08:19	17°≈37'15	-6°-49'-30	desc. node	919 Oct 16 j 21:16	5°Π57'25	
greatest brilliancy	914 Aug 05 j 22:10	17°≈44'02	-2.9m				
direct	914 Sep 04 j 20:08	12°≈42'19		conjunction	919 Nov 13 j 21:13	26°Π10'32	0°-17'-20
	914 Nov 01 j 07:42	0°✕		minimum elong	919 Nov 13 j 20:19	26°Π08'53	0°17'20
	914 Dec 23 j 09:51	0°Υ			919 Nov 19 j 01:51	0°♂	
asc. node	914 Dec 24 j 07:03	0°Υ32'52			919 Dec 28 j 21:13	0°Σ	
	915 Feb 08 j 20:14	0°♂		morning rise	920 Jan 09 j 18:49	9°Σ09'48	
	915 Mar 27 j 20:40	0°Π			920 Feb 05 j 13:35	0°≈	
	915 May 14 j 06:43	0°Σ			920 Mar 14 j 22:16	0°✕	
	915 Jun 30 j 21:34	0°Ω			920 Apr 22 j 20:35	0°Υ	
evening set	915 Jul 09 j 00:04	5°Ω07'07			920 Jun 02 j 08:06	0°♂	
max. Earth dist.	915 Aug 13 j 09:04	27°Ω36'16	2.66512 AU		920 Jul 15 j 13:44	0°Π	
	915 Aug 17 j 02:49	0°Π		asc. node	920 Aug 15 j 04:28	19°Π31'22	
					920 Sep 01 j 23:52	0°Σ	
conjunction	915 Aug 23 j 17:19	4°Π14'26	1°03'50		920 Nov 15 j 22:31	0°Ω	
minimum elong	915 Aug 23 j 18:08	4°Π15'44	1°03'49	retrograde	920 Nov 26 j 13:36	0°Ω42'08	
	915 Oct 02 j 07:56	0°Δ			920 Dec 06 j 19:30	30°℞Σ	
morning rise	915 Oct 07 j 08:05	3°Δ18'07		min. Earth dist.	921 Jan 03 j 21:23	21°Σ33'57	0.66446 AU
	915 Nov 16 j 04:21	0°Π		opposition	921 Jan 05 j 18:07	20°Σ49'05	4°19'14
	915 Dec 29 j 15:08	0°♂		greatest brilliancy	921 Jan 05 j 07:41	20°Σ59'32	-1.3m
desc. node	916 Jan 12 j 00:04	9°♂25'10		direct	921 Feb 14 j 15:13	11°Σ17'19	
	916 Feb 09 j 20:19	0°Σ			921 Apr 21 j 20:14	0°Ω	
	916 Mar 22 j 05:51	0°≈			921 Jun 17 j 08:30	0°Π	
	916 May 02 j 16:48	0°✕			921 Aug 04 j 22:18	0°Δ	
	916 Jun 15 j 10:35	0°Υ		desc. node	921 Sep 02 j 20:52	19°Δ16'34	
	916 Aug 11 j 12:31	0°♂			921 Sep 18 j 08:48	0°Π	
retrograde	916 Sep 08 j 09:05	5°♂08'51			921 Oct 29 j 20:46	0°♂	
	916 Oct 05 j 15:05	30°℞Υ		evening set	921 Nov 12 j 07:30	10°♂05'19	
min. Earth dist.	916 Oct 06 j 18:48	29°Υ36'20	0.46921 AU		921 Dec 08 j 07:22	0°Σ	
opposition	916 Oct 14 j 23:44	26°Υ42'05	-1°-26'-4	max. Earth dist.	921 Dec 21 j 10:20	10°Σ12'57	2.37705 AU
greatest brilliancy	916 Oct 14 j 08:33	26°Υ55'33	-2.3m				
asc. node	916 Nov 10 j 06:37	20°Υ09'29		conjunction	922 Jan 13 j 02:13	28°Σ01'27	-1°-3'-28
direct	916 Nov 17 j 00:44	19°Υ51'10		minimum elong	922 Jan 13 j 00:57	27°Σ58'57	1°03'28
	916 Dec 31 j 02:44	0°♂			922 Jan 15 j 14:20	0°≈	
	917 Mar 01 j 12:04	0°Π			922 Feb 22 j 15:40	0°✕	
	917 Apr 22 j 07:29	0°Σ		morning rise	922 Mar 24 j 03:20	22°✕55'47	
	917 Jun 10 j 21:08	0°Ω			922 Apr 02 j 08:48	0°Υ	
	917 Jul 28 j 20:15	0°Π			922 May 12 j 13:31	0°♂	
evening set	917 Aug 14 j 07:25	10°Π33'30			922 Jun 23 j 23:06	0°Π	
max. Earth dist.	917 Sep 06 j 11:54	25°Π41'48	2.60558 AU	asc. node	922 Jul 03 j 03:21	6°Π15'07	
	917 Sep 12 j 23:53	0°Δ			922 Aug 08 j 08:06	0°Σ	
					922 Sep 27 j 10:19	0°Ω	
conjunction	917 Sep 29 j 18:18	11°Δ14'04	0°34'18		922 Dec 03 j 14:13	0°Π	
minimum elong	917 Sep 29 j 19:25	11°Δ15'56	0°34'17	retrograde	922 Dec 31 j 02:27	4°Π08'28	
	917 Oct 27 j 03:22	0°Π			923 Jan 25 j 11:44	30°℞Ω	
morning rise	917 Nov 16 j 09:51	14°Π14'39		opposition	923 Feb 08 j 19:32	24°Ω44'21	4°28'07
desc. node	917 Nov 28 j 22:48	23°Π12'23		greatest brilliancy	923 Feb 09 j 04:14	24°Ω35'45	-1.2m
	917 Dec 08 j 08:29	0°♂		min. Earth dist.	923 Feb 10 j 20:03	23°Ω56'20	0.67221 AU
	918 Jan 17 j 22:40	0°Σ		direct	923 Mar 22 j 02:11	14°Ω45'12	
	918 Feb 26 j 10:35	0°≈			923 May 18 j 17:27	0°Π	
	918 Apr 06 j 13:37	0°✕			923 Jul 13 j 14:54	0°Δ	
	918 May 16 j 08:03	0°Υ		desc. node	923 Jul 21 j 20:24	5°Δ03'26	
	918 Jun 27 j 07:22	0°♂			923 Aug 28 j 22:07	0°Π	
	918 Aug 14 j 00:49	0°Π			923 Oct 09 j 22:26	0°♂	
asc. node	918 Sep 28 j 05:07	19°Π58'01			923 Nov 18 j 10:28	0°Σ	
retrograde	918 Oct 22 j 11:50	23°Π39'08			923 Dec 26 j 16:11	0°≈	

evening set	924 Jan 18 j 17:20	18° \approx 12'22			928 Oct 28 j 16:18	0° $\underline{\text{L}}$	
greatest brilliancy	924 Jan 22 j 18:40	21° \approx 24'07	1.2m		928 Dec 15 j 09:16	0° M	
	924 Feb 02 j 17:21	0° H			929 Feb 02 j 05:47	0° J	
	924 Mar 12 j 12:39	0° Y		desc. node	929 Mar 12 j 16:58	22° J 11'14	
					929 Mar 27 j 11:15	0° $\underline{\text{Z}}$	
conjunction	924 Mar 25 j 17:37	9° Y 58'19	0°-34'00	retrograde	929 Jun 04 j 13:16	21° $\underline{\text{Z}}$ 50'31	
minimum elong	924 Mar 25 j 20:08	10° Y 03'01	0°33'59	opposition	929 Jul 04 j 20:55	16° $\underline{\text{Z}}$ 48'03	-6°-9'-58
	924 Apr 21 j 20:41	0° B		greatest brilliancy	929 Jul 05 j 20:15	16° $\underline{\text{Z}}$ 32'09	-2.8m
max. Earth dist.	924 May 11 j 19:59	14° B 19'58	2.47089 AU	min. Earth dist.	929 Jul 08 j 10:30	15° $\underline{\text{Z}}$ 49'46	0.38302 AU
asc. node	924 May 20 j 01:41	20° B 08'28		direct	929 Aug 05 j 03:19	11° $\underline{\text{Z}}$ 21'12	
morning rise	924 May 27 j 03:47	25° B 05'27			929 Oct 02 j 13:14	0° \approx	
	924 Jun 03 j 05:55	0° II			929 Nov 20 j 19:05	0° H	
	924 Jul 17 j 22:59	0° $\underline{\text{S}}$			930 Jan 04 j 16:45	0° Y	
	924 Sep 03 j 05:56	0° Ω		asc. node	930 Jan 09 j 22:58	3° Y 32'45	
	924 Oct 24 j 05:59	0° M			930 Feb 18 j 09:28	0° B	
	924 Dec 25 j 17:41	0° $\underline{\text{L}}$			930 Apr 04 j 23:31	0° II	
retrograde	925 Feb 06 j 01:03	8° $\underline{\text{L}}$ 48'52			930 May 21 j 14:01	0° $\underline{\text{S}}$	
opposition	925 Mar 16 j 02:09	0° $\underline{\text{L}}$ 17'02	3°11'38	evening set	930 Jun 24 j 06:57	21° $\underline{\text{S}}$ 26'14	
	925 Mar 16 j 19:59	30° R M			930 Jul 07 j 18:45	0° Ω	
greatest brilliancy	925 Mar 17 j 00:21	29° M 55'49	-1.5m	max. Earth dist.	930 Aug 04 j 05:24	17° Ω 26'28	2.67391 AU
min. Earth dist.	925 Mar 21 j 21:37	28° M 03'48	0.61403 AU				
direct	925 Apr 26 j 04:47	20° M 22'53		conjunction	930 Aug 09 j 12:28	20° Ω 48'57	1°08'26
desc. node	925 Jun 07 j 18:27	29° M 59'54		minimum elong	930 Aug 09 j 12:50	20° Ω 49'30	1°08'25
	925 Jun 07 j 18:33	0° $\underline{\text{L}}$			930 Aug 23 j 21:24	0° M	
	925 Aug 03 j 07:59	0° M		morning rise	930 Sep 22 j 23:39	19° M 23'14	
	925 Sep 16 j 18:14	0° J			930 Oct 09 j 06:59	0° $\underline{\text{L}}$	
	925 Oct 27 j 03:45	0° $\underline{\text{Z}}$			930 Nov 23 j 15:28	0° M	
	925 Dec 04 j 20:54	0° \approx			931 Jan 06 j 22:19	0° J	
	926 Jan 12 j 07:52	0° H		desc. node	931 Jan 28 j 15:50	14° J 57'26	
	926 Feb 20 j 13:59	0° Y			931 Feb 19 j 08:06	0° $\underline{\text{Z}}$	
evening set	926 Mar 25 j 14:44	24° Y 22'56			931 Apr 03 j 09:20	0° \approx	
	926 Apr 02 j 09:38	0° B			931 May 17 j 14:11	0° H	
asc. node	926 Apr 07 j 01:31	3° B 20'19			931 Jul 08 j 22:06	0° Y	
	926 May 15 j 04:37	0° II		retrograde	931 Aug 18 j 14:19	10° Y 17'43	
				min. Earth dist.	931 Sep 14 j 11:08	5° Y 31'18	0.41945 AU
conjunction	926 May 21 j 18:07	4° II 28'42	0°26'36	opposition	931 Sep 21 j 23:26	3° Y 06'49	-3°-51'-4
minimum elong	926 May 21 j 16:49	4° II 26'30	0°26'35	greatest brilliancy	931 Sep 20 j 15:44	3° Y 32'19	-2.6m
max. Earth dist.	926 Jun 16 j 21:46	22° II 01'59	2.58933 AU		931 Oct 02 j 12:11	30° R H	
	926 Jun 28 j 23:44	0° $\underline{\text{S}}$		direct	931 Oct 23 j 02:05	27° H 11'52	
morning rise	926 Jul 12 j 09:15	8° $\underline{\text{S}}$ 44'27			931 Nov 13 j 13:09	0° Y	
	926 Aug 14 j 13:05	0° Ω		asc. node	931 Nov 27 j 22:12	4° Y 25'27	
	926 Oct 01 j 16:04	0° M			932 Jan 20 j 09:27	0° B	
	926 Nov 20 j 21:32	0° $\underline{\text{L}}$			932 Mar 12 j 01:24	0° II	
	927 Jan 15 j 17:13	0° M			932 Apr 30 j 12:39	0° $\underline{\text{S}}$	
retrograde	927 Mar 26 j 11:31	20° M 40'21			932 Jun 18 j 03:14	0° Ω	
desc. node	927 Apr 25 j 17:10	15° M 09'52		evening set	932 Jul 30 j 16:41	26° Ω 47'18	
opposition	927 Apr 30 j 05:13	13° M 38'03	0°-13'-46		932 Aug 04 j 17:26	0° M	
greatest brilliancy	927 Apr 20 j 04:50	16° M 53'01	-2.1m	max. Earth dist.	932 Aug 27 j 08:19	14° M 34'40	2.63496 AU
min. Earth dist.	927 May 08 j 14:31	10° M 43'22	0.49822 AU				
direct	927 Jun 07 j 11:42	4° M 59'21		conjunction	932 Sep 14 j 12:02	26° M 27'59	0°48'42
	927 Aug 16 j 16:37	0° J		minimum elong	932 Sep 14 j 13:14	26° M 29'57	0°48'41
	927 Oct 01 j 06:04	0° $\underline{\text{Z}}$			932 Sep 19 j 20:20	0° $\underline{\text{L}}$	
	927 Nov 11 j 03:35	0° \approx		morning rise	932 Oct 30 j 10:35	27° $\underline{\text{L}}$ 24'17	
	927 Dec 21 j 01:05	0° H			932 Nov 03 j 04:57	0° M	
	928 Jan 30 j 12:00	0° Y		desc. node	932 Dec 15 j 14:42	29° M 51'31	
asc. node	928 Feb 23 j 00:47	17° Y 00'20			932 Dec 15 j 19:25	0° J	
	928 Mar 12 j 09:11	0° B			933 Jan 25 j 21:37	0° $\underline{\text{Z}}$	
	928 Apr 25 j 01:22	0° II			933 Mar 06 j 22:30	0° \approx	
evening set	928 May 14 j 07:57	12° II 52'03			933 Apr 15 j 15:27	0° H	
	928 Jun 09 j 10:19	0° $\underline{\text{S}}$			933 May 26 j 04:34	0° Y	
					933 Jul 08 j 20:59	0° B	
conjunction	928 Jul 02 j 23:59	15° $\underline{\text{S}}$ 14'50	1°01'51		933 Sep 03 j 04:33	0° II	
minimum elong	928 Jul 02 j 22:55	15° $\underline{\text{S}}$ 13'08	1°01'51	retrograde	933 Oct 06 j 18:40	6° II 56'19	
max. Earth dist.	928 Jul 12 j 01:54	21° $\underline{\text{S}}$ 04'36	2.65876 AU	asc. node	933 Oct 14 j 21:57	6° II 27'24	
	928 Jul 26 j 00:43	0° Ω			933 Nov 07 j 16:45	30° R B	
morning rise	928 Aug 18 j 05:32	14° Ω 46'00		min. Earth dist.	933 Nov 07 j 12:23	0° II 04'08	0.54825 AU
	928 Sep 11 j 06:04	0° M		opposition	933 Nov 14 j 11:13	27° B 23'23	1°25'44

greatest brilliancy	933 Nov 13 j 21:17	27°♄36'52	-1.9m		939 Feb 10 j 07:20	0°♄	
direct	933 Dec 20 j 05:08	19°♄22'02					
	934 Feb 04 j 10:46	0°♄		conjunction	939 Feb 27 j 02:48	13°♄07'50	0°-55'-17
	934 Apr 06 j 21:30	0°♄		minimum elong	939 Feb 27 j 05:43	13°♄13'29	0°55'16
	934 May 29 j 02:13	0°♄			939 Mar 21 j 00:47	0°♄	
	934 Jul 17 j 01:16	0°♄		max. Earth dist.	939 Apr 19 j 09:43	22°♄02'39	2.41676 AU
	934 Sep 01 j 11:35	0°♄			939 Apr 30 j 06:03	0°♄	
evening set	934 Sep 07 j 06:22	3°♄51'04		morning rise	939 May 05 j 13:26	3°♄51'10	
max. Earth dist.	934 Sep 24 j 13:51	15°♄32'37	2.54533 AU	asc. node	939 Jun 06 j 18:54	26°♄41'58	
	934 Oct 15 j 11:49	0°♄			939 Jun 11 j 13:24	0°♄	
					939 Jul 26 j 08:49	0°♄	
conjunction	934 Oct 25 j 22:19	7°♄21'07	0°04'45		939 Sep 12 j 07:22	0°♄	
minimum elong	934 Oct 25 j 22:33	7°♄21'30	0°04'45		939 Nov 04 j 21:51	0°♄	
behind sun begin	934 Oct 25 j 02:05	6°♄45'17		retrograde	940 Jan 22 j 12:59	25°♄04'13	
behind sun end	934 Oct 26 j 19:01	7°♄57'46		opposition	940 Mar 01 j 09:28	16°♄08'37	3°52'50
desc. node	934 Nov 02 j 14:11	12°♄48'20		greatest brilliancy	940 Mar 02 j 04:14	15°♄50'21	-1.4m
	934 Nov 26 j 07:25	0°♄		min. Earth dist.	940 Mar 05 j 18:10	14°♄26'46	0.64443 AU
morning rise	934 Dec 17 j 04:54	15°♄30'38		direct	940 Apr 11 j 19:00	6°♄07'13	
	935 Jan 05 j 08:55	0°♄		desc. node	940 Jun 24 j 10:23	29°♄54'58	
	935 Feb 13 j 07:17	0°♄			940 Jun 24 j 14:11	0°♄	
	935 Mar 23 j 21:09	0°♄			940 Aug 13 j 12:39	0°♄	
	935 May 02 j 00:17	0°♄			940 Sep 25 j 14:22	0°♄	
	935 Jun 11 j 19:17	0°♄			940 Nov 04 j 12:01	0°♄	
	935 Jul 25 j 21:37	0°♄			940 Dec 12 j 22:39	0°♄	
asc. node	935 Sep 01 j 19:52	22°♄40'56			941 Jan 20 j 04:13	0°♄	
	935 Sep 15 j 22:32	0°♄			941 Feb 28 j 04:43	0°♄	
retrograde	935 Nov 14 j 00:57	17°♄14'08		evening set	941 Mar 01 j 10:36	0°♄56'26	
min. Earth dist.	935 Dec 20 j 17:24	8°♄37'49	0.64367 AU		941 Apr 09 j 18:24	0°♄	
greatest brilliancy	935 Dec 23 j 10:03	7°♄33'01	-1.4m	asc. node	941 Apr 23 j 17:47	10°♄00'43	
opposition	935 Dec 24 j 02:19	7°♄16'42	3°53'08				
	936 Jan 14 j 19:15	30°♄		conjunction	941 May 01 j 16:52	15°♄38'39	0°05'00
direct	936 Feb 01 j 01:22	28°♄03'09		minimum elong	941 May 01 j 16:33	15°♄38'07	0°05'00
	936 Feb 19 j 14:54	0°♄		behind sun begin	941 Apr 30 j 17:21	14°♄57'15	
	936 May 03 j 23:21	0°♄		behind sun end	941 May 02 j 15:46	16°♄18'56	
	936 Jun 25 j 19:24	0°♄			941 May 22 j 08:08	0°♄	
	936 Aug 12 j 10:51	0°♄		max. Earth dist.	941 Jun 04 j 19:13	9°♄11'17	2.54807 AU
desc. node	936 Sep 19 j 13:07	25°♄44'01		morning rise	941 Jun 25 j 20:12	23°♄17'10	
	936 Sep 25 j 15:39	0°♄			941 Jul 06 j 00:29	0°♄	
evening set	936 Oct 21 j 18:47	18°♄41'04			941 Aug 21 j 17:18	0°♄	
	936 Nov 06 j 04:10	0°♄			941 Oct 09 j 13:39	0°♄	
max. Earth dist.	936 Nov 08 j 15:48	1°♄50'50	2.41985 AU		941 Dec 01 j 03:34	0°♄	
	936 Dec 15 j 17:35	0°♄			942 Feb 09 j 16:47	0°♄	
				retrograde	942 Mar 05 j 16:57	3°♄08'24	
conjunction	936 Dec 17 j 15:38	1°♄28'59	0°-50'-32		942 Mar 28 j 00:57	30°♄	
minimum elong	936 Dec 17 j 13:15	1°♄24'23	0°50'31	opposition	942 Apr 10 j 23:15	25°♄24'58	1°26'27
	937 Jan 23 j 03:22	0°♄		greatest brilliancy	942 Apr 11 j 15:06	25°♄10'28	-1.8m
morning rise	937 Feb 21 j 17:10	23°♄17'10		min. Earth dist.	942 Apr 18 j 16:04	22°♄36'04	0.54887 AU
	937 Mar 02 j 06:31	0°♄		desc. node	942 May 12 j 09:06	16°♄32'30	
	937 Apr 10 j 00:16	0°♄		direct	942 May 20 j 19:14	16°♄03'16	
	937 May 20 j 05:21	0°♄			942 Jul 10 j 17:24	0°♄	
	937 Jul 01 j 18:27	0°♄			942 Aug 30 j 21:02	0°♄	
asc. node	937 Jul 19 j 18:46	12°♄04'38			942 Oct 12 j 04:00	0°♄	
	937 Aug 16 j 18:57	0°♄			942 Nov 20 j 18:57	0°♄	
	937 Oct 08 j 16:16	0°♄			942 Dec 29 j 21:21	0°♄	
retrograde	937 Dec 17 j 14:13	21°♄27'21			943 Feb 07 j 17:09	0°♄	
opposition	938 Jan 26 j 14:40	11°♄49'19	4°34'10	asc. node	943 Mar 11 j 16:12	23°♄18'20	
greatest brilliancy	938 Jan 26 j 15:42	11°♄48'16	-1.2m		943 Mar 21 j 01:23	0°♄	
min. Earth dist.	938 Jan 27 j 02:37	11°♄37'23	0.67703 AU	evening set	943 Apr 27 j 04:45	25°♄50'49	
direct	938 Mar 08 j 11:46	1°♄57'45			943 May 03 j 07:11	0°♄	
	938 May 31 j 22:28	0°♄			943 Jun 17 j 09:00	0°♄	
	938 Jul 22 j 13:18	0°♄					
desc. node	938 Aug 07 j 11:43	10°♄12'29		conjunction	943 Jun 18 j 04:54	0°♄32'31	0°51'44
	938 Sep 05 j 21:08	0°♄		minimum elong	943 Jun 18 j 03:27	0°♄30'09	0°51'43
	938 Oct 17 j 14:47	0°♄		max. Earth dist.	943 Jul 03 j 10:54	10°♄27'31	2.63810 AU
	938 Nov 26 j 01:27	0°♄			943 Aug 02 j 21:14	0°♄	
evening set	938 Dec 21 j 15:55	20°♄02'07		morning rise	943 Aug 05 j 00:41	1°♄22'00	
	939 Jan 03 j 06:54	0°♄			943 Sep 19 j 07:56	0°♄	

	943 Nov 06 j 12:18	0°♄			949 Jun 05 j 20:11	0°♄	
	943 Dec 26 j 01:06	0°♌			949 Jul 24 j 03:09	0°♎	
	944 Feb 17 j 19:08	0°♊		evening set	949 Aug 22 j 20:14	19°♎06'45	
desc. node	944 Mar 29 j 08:09	17°♊51'51			949 Sep 08 j 09:09	0°♄	
retrograde	944 May 04 j 10:52	24°♊46'01		max. Earth dist.	949 Sep 12 j 18:57	2°♄55'58	2.58611 AU
opposition	944 Jun 05 j 08:55	19°♊02'19	-3°-51'-45				
greatest brilliancy	944 Jun 06 j 17:15	18°♊37'53	-2.6m	conjunction	949 Oct 08 j 21:19	20°♄35'32	0°24'22
min. Earth dist.	944 Jun 12 j 14:37	16°♊51'50	0.41908 AU	minimum elong	949 Oct 08 j 22:13	20°♄37'05	0°24'20
direct	944 Jul 09 j 15:28	12°♊16'09			949 Oct 22 j 11:49	0°♌	
	944 Sep 03 j 19:05	0°♊		desc. node	949 Nov 19 j 05:42	19°♌37'45	
	944 Oct 21 j 20:01	0°♋		morning rise	949 Nov 26 j 20:30	25°♌07'18	
	944 Dec 03 j 15:34	0°♏			949 Dec 03 j 13:43	0°♊	
	945 Jan 14 j 22:11	0°♍			950 Jan 12 j 23:32	0°♊	
asc. node	945 Jan 26 j 15:22	8°♍13'42			950 Feb 21 j 06:23	0°♋	
	945 Feb 27 j 02:28	0°♏			950 Apr 01 j 04:01	0°♏	
	945 Apr 12 j 17:23	0°♌			950 May 10 j 15:22	0°♍	
	945 May 28 j 17:23	0°♍			950 Jun 21 j 00:11	0°♏	
evening set	945 Jun 09 j 01:56	7°♍18'01			950 Aug 05 j 18:53	0°♌	
	945 Jul 14 j 14:48	0°♄		asc. node	950 Sep 18 j 12:45	22°♌50'57	
					950 Oct 09 j 11:28	0°♍	
conjunction	945 Jul 26 j 06:05	7°♄24'29	1°09'06	retrograde	950 Oct 30 j 22:49	2°♍52'18	
minimum elong	945 Jul 26 j 05:53	7°♄24'10	1°09'06		950 Nov 20 j 02:49	30°♌♌	
max. Earth dist.	945 Jul 26 j 08:29	7°♄28'17	2.67460 AU	min. Earth dist.	950 Dec 04 j 19:51	24°♌52'35	0.61288 AU
	945 Aug 30 j 16:58	0°♎		opposition	950 Dec 09 j 16:14	22°♌56'39	3°11'47
morning rise	945 Sep 09 j 00:37	5°♎57'31		greatest brilliancy	950 Dec 08 j 20:38	23°♌16'12	-1.5m
	945 Oct 16 j 09:36	0°♄		direct	951 Jan 16 j 12:35	14°♌06'26	
	945 Dec 01 j 10:31	0°♌			951 Mar 17 j 04:18	0°♍	
	946 Jan 15 j 21:41	0°♊			951 May 14 j 20:42	0°♄	
desc. node	946 Feb 14 j 08:31	19°♊31'05			951 Jul 04 j 16:04	0°♎	
	946 Mar 02 j 05:07	0°♊			951 Aug 20 j 16:57	0°♄	
	946 Apr 17 j 14:20	0°♋		evening set	951 Oct 03 j 18:50	0°♌00'00	
	946 Jun 10 j 06:22	0°♏			951 Oct 03 j 18:49	0°♌	
retrograde	946 Jul 23 j 17:33	11°♏05'21		desc. node	951 Oct 07 j 04:40	2°♌23'57	
min. Earth dist.	946 Aug 19 j 18:40	6°♏37'48	0.38354 AU	max. Earth dist.	951 Oct 18 j 08:42	10°♌19'50	2.47068 AU
greatest brilliancy	946 Aug 23 j 06:55	5°♏38'36	-2.8m		951 Nov 14 j 09:16	0°♊	
opposition	946 Aug 24 j 08:33	5°♏20'29	-6°-8'-5				
direct	946 Sep 23 j 02:42	0°♏14'24		conjunction	951 Nov 25 j 15:11	8°♊22'18	0°-30'-9
	946 Dec 13 j 17:32	0°♍		minimum elong	951 Nov 25 j 13:35	8°♊19'19	0°30'08
asc. node	946 Dec 14 j 13:51	0°♍28'35			951 Dec 24 j 02:40	0°♊	
	947 Feb 02 j 01:40	0°♏			952 Jan 24 j 16:22	24°♊30'47	
	947 Mar 22 j 06:30	0°♌			952 Jan 31 j 16:30	0°♋	
	947 May 09 j 06:37	0°♍			952 Mar 09 j 22:48	0°♏	
	947 Jun 26 j 04:41	0°♄		greatest brilliancy	952 Mar 21 j 08:10	8°♏52'32	1.2m
evening set	947 Jul 17 j 06:38	13°♄17'26			952 Apr 17 j 18:49	0°♍	
	947 Aug 12 j 12:48	0°♎			952 May 28 j 02:37	0°♏	
max. Earth dist.	947 Aug 18 j 18:33	4°♎00'13	2.65678 AU		952 Jul 09 j 23:31	0°♌	
				asc. node	952 Aug 05 j 11:45	17°♌18'58	
conjunction	947 Aug 31 j 21:23	12°♎28'03	0°59'22		952 Aug 26 j 04:05	0°♍	
minimum elong	947 Aug 31 j 22:23	12°♎29'41	0°59'21		952 Oct 24 j 16:26	0°♄	
	947 Sep 27 j 17:05	0°♄		retrograde	952 Dec 04 j 06:25	8°♄39'14	
morning rise	947 Oct 15 j 19:15	12°♄01'10			953 Jan 10 j 12:36	30°♌♌	
	947 Nov 11 j 09:23	0°♌		min. Earth dist.	953 Jan 12 j 09:25	29°♍15'13	0.67167 AU
	947 Dec 24 j 12:29	0°♊		opposition	953 Jan 13 j 10:01	28°♍50'34	4°28'20
desc. node	948 Jan 02 j 07:18	6°♊14'03		greatest brilliancy	953 Jan 13 j 03:27	28°♍57'08	-1.2m
	948 Feb 04 j 07:02	0°♊		direct	953 Feb 22 j 16:24	19°♍10'46	
	948 Mar 16 j 02:29	0°♋			953 Apr 11 j 11:09	0°♄	
	948 Apr 25 j 17:36	0°♏			953 Jun 11 j 06:52	0°♎	
	948 Jun 06 j 18:27	0°♍			953 Jul 30 j 18:15	0°♄	
	948 Jul 24 j 21:45	0°♏		desc. node	953 Aug 24 j 03:52	16°♄02'58	
retrograde	948 Sep 19 j 09:17	17°♏52'14			953 Sep 13 j 12:13	0°♌	
min. Earth dist.	948 Oct 18 j 22:02	11°♏50'54	0.49799 AU		953 Oct 25 j 02:30	0°♊	
opposition	948 Oct 26 j 21:08	8°♏55'10	0°-14'-29	evening set	953 Nov 25 j 16:13	23°♊54'36	
greatest brilliancy	948 Nov 03 j 14:58	6°♏11'17	-2.2m		953 Dec 03 j 13:23	0°♊	
asc. node	948 Oct 31 j 12:44	7°♏14'25			954 Jan 10 j 19:37	0°♋	
direct	948 Nov 29 j 23:26	1°♏36'22					
	949 Feb 21 j 12:00	0°♌		conjunction	954 Jan 29 j 01:45	14°♋25'30	-1°-4'-53
	949 Apr 16 j 11:52	0°♍		minimum elong	954 Jan 29 j 02:08	14°♋26'17	1°04'54

	954 Feb 17 j 20:05	0° H		retrograde	959 Apr 08 j 14:25	2° Z 11'49	
max. Earth dist.	954 Feb 22 j 12:36	3° H 40'35	2.37331 AU	desc. node	959 Apr 16 j 00:59	1° Z 50'55	
	954 Mar 28 j 12:32	0° Y			959 Apr 27 j 09:06	30° R M	
morning rise	954 Apr 09 j 09:33	9° Y 00'48		opposition	959 May 12 j 10:30	25° M 35'38	-1°-25'-3
	954 May 07 j 16:17	0° B		greatest brilliancy	959 May 13 j 02:47	25° M 22'01	-2.3m
	954 Jun 18 j 23:33	0° II		min. Earth dist.	959 May 20 j 20:40	22° M 47'23	0.46909 AU
asc. node	954 Jun 23 j 10:07	3° II 02'51		direct	959 Jun 18 j 11:56	17° M 30'29	
	954 Aug 03 j 01:05	0° S			959 Aug 03 j 20:24	0° Z	
	954 Sep 21 j 01:48	0° O			959 Sep 23 j 07:45	0° Z	
	954 Nov 19 j 01:42	0° M			959 Nov 04 j 13:13	0° \approx	
retrograde	955 Jan 08 j 02:44	11° M 58'18			959 Dec 15 j 02:50	0° H	
opposition	955 Feb 16 j 13:13	2° M 43'24	4°18'52		960 Jan 25 j 00:52	0° Y	
greatest brilliancy	955 Feb 17 j 01:53	2° M 30'55	-1.3m	asc. node	960 Feb 13 j 06:27	13° Y 48'24	
min. Earth dist.	955 Feb 19 j 09:49	1° M 35'50	0.66501 AU		960 Mar 07 j 06:17	0° B	
	955 Feb 23 j 12:31	30° R O			960 Apr 20 j 04:46	0° II	
direct	955 Mar 29 j 21:58	22° O 42'02		evening set	960 May 24 j 01:00	22° II 22'34	
	955 May 06 j 11:44	0° M			960 Jun 04 j 17:55	0° S	
	955 Jul 07 j 04:23	0° A					
desc. node	955 Jul 12 j 02:13	2° A 54'04		conjunction	960 Jul 11 j 15:44	23° S 45'43	1°05'44
	955 Aug 23 j 11:45	0° M		minimum elong	960 Jul 11 j 14:58	23° S 44'30	1°05'44
	955 Oct 04 j 20:08	0° Z		max. Earth dist.	960 Jul 17 j 10:41	27° S 27'40	2.66686 AU
	955 Nov 13 j 11:36	0° Z			960 Jul 21 j 10:08	0° O	
	955 Dec 21 j 18:55	0° \approx		morning rise	960 Aug 26 j 05:03	22° O 46'54	
	956 Jan 28 j 21:11	0° H			960 Sep 06 j 13:35	0° M	
evening set	956 Feb 03 j 13:54	4° H 27'03			960 Oct 23 j 16:23	0° A	
	956 Mar 07 j 17:37	0° Y			960 Dec 09 j 16:20	0° M	
					961 Jan 25 j 23:33	0° Z	
conjunction	956 Apr 08 j 22:21	24° Y 02'09	0°-19'-47	desc. node	961 Mar 03 j 00:03	22° Z 15'19	
minimum elong	956 Apr 08 j 23:48	24° Y 04'50	0°19'46		961 Mar 15 j 23:16	0° Z	
	956 Apr 17 j 02:32	0° B			961 May 12 j 18:28	0° \approx	
asc. node	956 May 10 j 10:07	16° B 41'19		retrograde	961 Jun 22 j 18:05	9° \approx 20'07	
max. Earth dist.	956 May 21 j 14:49	24° B 32'14	2.49971 AU	opposition	961 Jul 22 j 22:53	4° \approx 21'27	-6°-50'-4
	956 May 29 j 12:04	0° II		greatest brilliancy	961 Jul 23 j 04:44	4° \approx 17'35	-2.9m
morning rise	956 Jun 07 j 13:03	6° II 12'06		min. Earth dist.	961 Jul 23 j 13:11	4° \approx 11'59	0.37439 AU
	956 Jul 13 j 03:20	0° S			961 Aug 12 j 00:23	30° R Z	
	956 Aug 29 j 03:03	0° O		direct	961 Aug 21 j 21:45	29° Z 20'42	
	956 Oct 18 j 02:35	0° M			961 Aug 31 j 19:45	0° \approx	
	956 Dec 14 j 03:22	0° A			961 Nov 10 j 15:08	0° H	
retrograde	957 Feb 15 j 13:08	17° A 32'52			961 Dec 28 j 10:56	0° Y	
opposition	957 Mar 25 j 00:27	9° A 16'28	2°39'24	asc. node	961 Dec 31 j 06:11	1° Y 49'01	
greatest brilliancy	957 Mar 25 j 22:27	8° A 55'42	-1.6m		962 Feb 12 j 10:25	0° B	
min. Earth dist.	957 Mar 31 j 13:34	6° A 48'09	0.59298 AU		962 Mar 30 j 17:07	0° II	
	957 Apr 26 j 04:27	30° R M			962 May 16 j 17:10	0° S	
direct	957 May 04 j 18:52	29° M 30'12		evening set	962 Jul 02 j 18:32	29° S 46'20	
	957 May 13 j 14:14	0° A			962 Jul 03 j 03:11	0° O	
desc. node	957 May 29 j 01:15	2° A 59'47		max. Earth dist.	962 Aug 09 j 12:19	23° O 44'15	2.67015 AU
	957 Jul 26 j 19:45	0° M					
	957 Sep 10 j 16:56	0° Z		conjunction	962 Aug 17 j 15:49	28° O 56'38	1°06'12
	957 Oct 21 j 14:37	0° Z		minimum elong	962 Aug 17 j 16:27	28° O 57'38	1°06'12
	957 Nov 29 j 13:47	0° \approx			962 Aug 19 j 07:25	0° M	
	958 Jan 07 j 04:57	0° H		morning rise	962 Oct 01 j 03:12	27° M 42'52	
	958 Feb 15 j 14:52	0° Y			962 Oct 04 j 14:54	0° A	
asc. node	958 Mar 28 j 08:40	29° Y 50'46			962 Nov 18 j 17:08	0° M	
	958 Mar 28 j 13:49	0° B			963 Jan 01 j 12:43	0° Z	
evening set	958 Apr 07 j 02:28	6° B 47'05		desc. node	963 Jan 18 j 22:51	12° Z 09'08	
	958 May 10 j 11:32	0° II			963 Feb 13 j 05:55	0° Z	
					963 Mar 27 j 06:29	0° \approx	
conjunction	958 Jun 01 j 04:18	14° II 40'05	0°37'06		963 May 08 j 15:28	0° H	
minimum elong	958 Jun 01 j 02:47	14° II 37'34	0°37'04		963 Jun 23 j 11:20	0° Y	
max. Earth dist.	958 Jun 23 j 03:59	29° II 14'12	2.60899 AU	retrograde	963 Aug 31 j 09:15	25° Y 17'35	
	958 Jun 24 j 07:54	0° S		min. Earth dist.	963 Sep 27 j 22:26	20° Y 07'38	0.44607 AU
morning rise	958 Jul 21 j 05:25	17° S 28'07		greatest brilliancy	963 Oct 05 j 01:48	17° Y 42'07	-2.4m
	958 Aug 09 j 19:43	0° O		opposition	963 Oct 06 j 01:35	17° Y 21'51	-2°-26'-6
	958 Sep 26 j 15:03	0° M		direct	963 Nov 07 j 05:53	10° Y 55'27	
	958 Nov 14 j 22:26	0° A		asc. node	963 Nov 18 j 06:04	11° Y 41'26	
	959 Jan 06 j 14:35	0° M			964 Jan 10 j 01:03	0° B	
	959 Mar 19 j 22:38	0° Z			964 Mar 05 j 11:32	0° II	

	964 Apr 25 j 03:18	0°☿			969 Jan 18 j 07:37	0°≈		
	964 Jun 13 j 06:23	0°♈			969 Feb 25 j 09:32	0°♈		
	964 Jul 31 j 02:00	0°♊		morning rise	969 Mar 10 j 22:28	10°♈35'00		
evening set	964 Aug 08 j 00:41	5°♊04'51			969 Apr 05 j 02:19	0°♊		
max. Earth dist.	964 Sep 02 j 04:55	21°♊23'52	2.61980 AU		969 May 15 j 06:00	0°♊		
	964 Sep 15 j 06:08	0°♊			969 Jun 26 j 15:14	0°♊		
				asc. node	969 Jul 10 j 02:53	9°♊08'28		
conjunction	964 Sep 23 j 03:01	5°♊14'12	0°40'47		969 Aug 11 j 03:52	0°♊		
minimum elong	964 Sep 23 j 04:12	5°♊16'11	0°40'46		969 Oct 01 j 01:50	0°♊		
	964 Oct 29 j 12:58	0°♊		retrograde	969 Dec 25 j 07:50	29°♊11'28		
morning rise	964 Nov 08 j 21:29	7°♊12'33		opposition	970 Feb 03 j 04:07	19°♊40'43	4°31'56	
desc. node	964 Dec 05 j 21:43	26°♊21'43		greatest brilliancy	970 Feb 03 j 09:25	19°♊35'26	-1.2m	
	964 Dec 10 j 22:57	0°♊		min. Earth dist.	970 Feb 04 j 12:10	19°♊08'51	0.67564 AU	
	965 Jan 20 j 18:58	0°♊		direct	970 Mar 16 j 06:31	9°♊44'27		
	965 Mar 01 j 12:33	0°≈			970 May 23 j 23:13	0°♊		
	965 Apr 09 j 20:54	0°♈			970 Jul 16 j 20:09	0°♊		
	965 May 19 j 21:35	0°♊		desc. node	970 Jul 28 j 19:08	7°♊28'58		
	965 Jul 01 j 08:53	0°♊			970 Aug 31 j 18:25	0°♊		
	965 Aug 20 j 03:43	0°♊			970 Oct 12 j 16:50	0°♊		
asc. node	965 Oct 05 j 04:31	16°♊22'43			970 Nov 21 j 05:02	0°♊		
retrograde	965 Oct 15 j 22:45	17°♊09'32			970 Dec 29 j 10:45	0°≈		
min. Earth dist.	965 Nov 17 j 20:32	9°♊51'19	0.57347 AU	evening set	971 Jan 06 j 08:38	6°≈15'22		
greatest brilliancy	965 Nov 23 j 07:54	7°♊42'36	-1.7m		971 Feb 05 j 11:07	0°♈		
opposition	965 Nov 24 j 02:09	7°♊24'41	2°11'20					
	965 Dec 18 j 18:56	30°♈		conjunction	971 Mar 15 j 01:31	29°♈08'03	0°-44'-3	
direct	965 Dec 30 j 15:11	29°♈03'46		minimum elong	971 Mar 15 j 04:32	29°♈13'49	0°44'02	
	966 Jan 12 j 01:55	0°♊			971 Mar 16 j 04:47	0°♊		
	966 Mar 30 j 18:22	0°♊			971 Apr 25 j 10:22	0°♊		
	966 May 23 j 15:03	0°♊		max. Earth dist.	971 May 03 j 22:58	6°♊10'40	2.44670 AU	
	966 Jul 12 j 03:44	0°♊		morning rise	971 May 18 j 19:19	16°♊46'45		
	966 Aug 27 j 19:01	0°♊		asc. node	971 May 28 j 00:57	23°♊16'30		
evening set	966 Sep 16 j 12:55	13°♊14'18			971 Jun 06 j 17:14	0°♊		
max. Earth dist.	966 Oct 02 j 10:37	24°♊08'53	2.52015 AU		971 Jul 21 j 09:36	0°♊		
	966 Oct 10 j 20:17	0°♊			971 Sep 06 j 20:47	0°♊		
desc. node	966 Oct 23 j 20:27	9°♊11'04			971 Oct 28 j 16:24	0°♊		
					972 Jan 06 j 15:55	0°♊		
conjunction	966 Nov 05 j 10:17	18°♊12'08	0°-7'-47	retrograde	972 Jan 31 j 06:21	3°♊17'40		
minimum elong	966 Nov 05 j 09:53	18°♊11'26	0°07'49		972 Feb 23 j 00:57	30°♈		
behind sun begin	966 Nov 04 j 14:22	17°♊36'12		opposition	972 Mar 09 j 16:15	24°♊34'34	3°30'39	
behind sun end	966 Nov 06 j 05:24	18°♊46'42		greatest brilliancy	972 Mar 10 j 13:13	24°♊14'19	-1.4m	
	966 Nov 21 j 14:27	0°♊		min. Earth dist.	972 Mar 14 j 20:04	22°♊35'07	0.62890 AU	
morning rise	966 Dec 30 j 01:45	28°♊51'58		direct	972 Apr 19 j 22:17	14°♊36'04		
	966 Dec 31 j 13:23	0°♊		desc. node	972 Jun 14 j 17:27	29°♊47'03		
	967 Feb 08 j 08:46	0°≈			972 Jun 15 j 04:32	0°♊		
	967 Mar 18 j 19:28	0°♈			972 Aug 07 j 06:22	0°♊		
	967 Apr 26 j 19:06	0°♊			972 Sep 20 j 02:19	0°♊		
	967 Jun 06 j 08:02	0°♊			972 Oct 30 j 07:05	0°♊		
	967 Jul 19 j 18:58	0°♊			972 Dec 07 j 21:18	0°≈		
asc. node	967 Aug 23 j 03:34	21°♊27'52			973 Jan 15 j 05:10	0°♈		
	967 Sep 07 j 05:10	0°♊			973 Feb 23 j 07:45	0°♊		
retrograde	967 Nov 21 j 20:58	25°♊30'08		evening set	973 Mar 15 j 11:11	15°♊02'08		
min. Earth dist.	967 Dec 29 j 11:10	16°♊35'41	0.65634 AU		973 Apr 04 j 23:21	0°♊		
greatest brilliancy	967 Dec 31 j 10:51	15°♊47'48	-1.3m	asc. node	973 Apr 14 j 00:25	6°♊29'23		
opposition	968 Jan 01 j 00:11	15°♊34'24	4°10'09					
direct	968 Feb 09 j 11:33	6°♊10'19		conjunction	973 May 13 j 09:46	27°♊06'42	0°17'56	
	968 Apr 26 j 11:24	0°♊		minimum elong	973 May 13 j 08:47	27°♊05'00	0°17'56	
	968 Jun 20 j 06:37	0°♊			973 May 17 j 14:29	0°♊		
	968 Aug 07 j 11:42	0°♊		max. Earth dist.	973 Jun 12 j 00:57	17°♊14'23	2.57177 AU	
desc. node	968 Sep 09 j 19:38	22°♊19'13			973 Jul 01 j 07:00	0°♊		
	968 Sep 20 j 21:09	0°♊		morning rise	973 Jul 05 j 11:35	2°♊44'55		
	968 Nov 01 j 10:24	0°♊			973 Aug 16 j 20:33	0°♊		
evening set	968 Nov 02 j 15:35	0°♊54'12			973 Oct 04 j 05:14	0°♊		
max. Earth dist.	968 Nov 27 j 02:36	19°♊21'00	2.39369 AU		973 Nov 24 j 06:05	0°♊		
	968 Dec 10 j 23:05	0°♊			974 Jan 22 j 13:47	0°♊		
				retrograde	974 Mar 17 j 02:28	13°♊16'09		
conjunction	969 Jan 01 j 04:32	16°♊32'06	0°-59'-15	opposition	974 Apr 21 j 13:32	5°♊54'12	0°32'29	
minimum elong	969 Jan 01 j 02:29	16°♊28'04	0°59'16	greatest brilliancy	974 Apr 21 j 20:27	5°♊48'02	-2.0m	

min. Earth dist.	974 Apr 29 j 17:01	3° \mathbb{M} 00'04	0.52149 AU	evening set	979 Jul 25 j 12:51	21° Ω 27'48	
desc. node	974 May 02 j 16:01	1° \mathbb{M} 59'45			979 Aug 07 j 22:26	0° \mathbb{M}	
	974 May 09 j 04:39	30° \mathbb{R} $\underline{\mathbb{A}}$		max. Earth dist.	979 Aug 24 j 06:16	10° \mathbb{M} 29'42	2.64571 AU
direct	974 May 30 j 14:14	26° $\underline{\mathbb{A}}$ 53'42					
	974 Jun 21 j 18:51	0° \mathbb{M}		conjunction	979 Sep 09 j 04:54	20° \mathbb{M} 51'31	0°53'36
	974 Aug 22 j 20:02	0° \mathbb{A}		minimum elong	979 Sep 09 j 06:03	20° \mathbb{M} 53'24	0°53'36
	974 Oct 05 j 16:04	0° \mathbb{Z}			979 Sep 23 j 02:36	0° $\underline{\mathbb{A}}$	
	974 Nov 14 j 22:26	0° \approx		morning rise	979 Oct 24 j 14:30	21° $\underline{\mathbb{A}}$ 05'55	
	974 Dec 24 j 09:57	0° \mathbb{H}			979 Nov 06 j 15:20	0° \mathbb{M}	
	975 Feb 02 j 12:41	0° \mathbb{Y}			979 Dec 19 j 11:55	0° \mathbb{A}	
asc. node	975 Mar 01 j 23:45	19° \mathbb{Y} 57'22		desc. node	979 Dec 23 j 13:20	2° \mathbb{A} 53'58	
	975 Mar 16 j 02:32	0° \mathbb{B}			980 Jan 29 j 21:33	0° \mathbb{Z}	
	975 Apr 28 j 12:32	0° \mathbb{H}			980 Mar 10 j 06:24	0° \approx	
evening set	975 May 07 j 17:41	6° \mathbb{H} 12'23			980 Apr 19 j 07:40	0° \mathbb{H}	
	975 Jun 12 j 17:04	0° \mathbb{Z}			980 May 30 j 08:38	0° \mathbb{Y}	
					980 Jul 14 j 06:19	0° \mathbb{B}	
conjunction	975 Jun 27 j 08:56	9° \mathbb{Z} 31'45	0°58'08	retrograde	980 Sep 29 j 13:36	29° \mathbb{B} 28'44	
minimum elong	975 Jun 27 j 07:41	9° \mathbb{Z} 29'43	0°58'08	asc. node	980 Oct 21 j 21:04	25° \mathbb{B} 52'09	
max. Earth dist.	975 Jul 09 j 03:16	17° \mathbb{Z} 07'14	2.65053 AU	min. Earth dist.	980 Oct 30 j 07:46	22° \mathbb{B} 58'15	0.52632 AU
	975 Jul 29 j 05:41	0° Ω		opposition	980 Nov 06 j 18:11	20° \mathbb{B} 09'07	0°46'51
morning rise	975 Aug 13 j 05:41	9° Ω 33'13		greatest brilliancy	980 Nov 06 j 09:34	20° \mathbb{B} 17'19	-2.0m
	975 Sep 14 j 12:43	0° \mathbb{M}		direct	980 Dec 11 j 18:33	12° \mathbb{B} 25'37	
	975 Nov 01 j 06:10	0° $\underline{\mathbb{A}}$			981 Feb 11 j 21:41	0° \mathbb{H}	
	975 Dec 19 j 15:49	0° \mathbb{M}			981 Apr 10 j 08:41	0° \mathbb{Z}	
	976 Feb 08 j 03:28	0° \mathbb{A}			981 May 31 j 16:54	0° Ω	
desc. node	976 Mar 19 j 15:46	21° \mathbb{A} 31'41			981 Jul 19 j 09:19	0° \mathbb{M}	
	976 Apr 07 j 20:34	0° \mathbb{Z}		evening set	981 Aug 31 j 12:52	27° \mathbb{M} 51'04	
retrograde	976 May 21 j 13:09	9° \mathbb{Z} 50'33			981 Sep 03 j 18:46	0° $\underline{\mathbb{A}}$	
opposition	976 Jun 21 j 09:36	4° \mathbb{Z} 33'17	-5°-15'-45	max. Earth dist.	981 Sep 19 j 10:39	10° $\underline{\mathbb{A}}$ 28'43	2.56442 AU
greatest brilliancy	976 Jun 22 j 17:17	4° \mathbb{Z} 10'46	-2.7m		981 Oct 17 j 21:11	0° \mathbb{M}	
min. Earth dist.	976 Jun 26 j 22:33	2° \mathbb{Z} 59'00	0.39645 AU				
	976 Jul 09 j 05:53	30° \mathbb{R} \mathbb{A}		conjunction	981 Oct 18 j 09:27	0° \mathbb{M} 21'24	0°13'24
direct	976 Jul 23 j 23:49	28° \mathbb{A} 33'36		minimum elong	981 Oct 18 j 10:00	0° \mathbb{M} 22'22	0°13'23
	976 Aug 07 j 12:51	0° \mathbb{Z}		behind sun begin	981 Oct 17 j 22:10	0° \mathbb{M} 01'43	
	976 Oct 11 j 18:37	0° \approx		behind sun end	981 Oct 18 j 21:50	0° \mathbb{M} 43'01	
	976 Nov 26 j 04:58	0° \mathbb{H}		desc. node	981 Nov 09 j 13:07	16° \mathbb{M} 01'34	
	977 Jan 08 j 16:25	0° \mathbb{Y}			981 Nov 28 j 20:26	0° \mathbb{A}	
asc. node	977 Jan 16 j 22:07	5° \mathbb{Y} 40'25		morning rise	981 Dec 08 j 00:58	6° \mathbb{A} 45'09	
	977 Feb 21 j 14:06	0° \mathbb{B}			982 Jan 08 j 02:07	0° \mathbb{Z}	
	977 Apr 07 j 15:58	0° \mathbb{H}			982 Feb 16 j 04:26	0° \approx	
	977 May 23 j 22:55	0° \mathbb{Z}			982 Mar 26 j 21:16	0° \mathbb{H}	
evening set	977 Jun 17 j 21:09	15° \mathbb{Z} 55'44			982 May 05 j 02:56	0° \mathbb{Y}	
	977 Jul 09 j 23:54	0° Ω			982 Jun 15 j 01:43	0° \mathbb{B}	
max. Earth dist.	977 Jul 31 j 14:14	13° Ω 44'08	2.67523 AU		982 Jul 29 j 15:23	0° \mathbb{H}	
				asc. node	982 Sep 08 j 19:09	23° \mathbb{H} 36'13	
conjunction	977 Aug 03 j 11:29	15° Ω 34'20	1°09'10		982 Sep 22 j 09:15	0° \mathbb{Z}	
minimum elong	977 Aug 03 j 11:37	15° Ω 34'31	1°09'10	retrograde	982 Nov 08 j 03:10	11° \mathbb{Z} 40'41	
	977 Aug 26 j 02:10	0° \mathbb{M}		min. Earth dist.	982 Dec 14 j 00:22	3° \mathbb{Z} 20'07	0.63115 AU
morning rise	977 Sep 17 j 00:21	14° \mathbb{M} 04'14		greatest brilliancy	982 Dec 17 j 07:03	2° \mathbb{Z} 01'21	-1.4m
	977 Oct 11 j 15:05	0° $\underline{\mathbb{A}}$		opposition	982 Dec 18 j 01:20	1° \mathbb{Z} 43'01	3°38'00
	977 Nov 26 j 06:53	0° \mathbb{M}			982 Dec 22 j 09:32	30° \mathbb{R} \mathbb{H}	
	978 Jan 10 j 01:35	0° \mathbb{A}		direct	983 Jan 25 j 12:44	22° \mathbb{H} 39'19	
desc. node	978 Feb 04 j 14:42	17° \mathbb{A} 19'26			983 Mar 04 j 16:13	0° \mathbb{Z}	
	978 Feb 23 j 05:17	0° \mathbb{Z}			983 May 08 j 12:57	0° Ω	
	978 Apr 08 j 09:56	0° \approx			983 Jun 29 j 11:32	0° \mathbb{M}	
	978 May 25 j 00:04	0° \mathbb{H}			983 Aug 15 j 21:53	0° $\underline{\mathbb{A}}$	
retrograde	978 Aug 07 j 20:48	28° \mathbb{H} 26'13		desc. node	983 Sep 27 j 12:09	28° $\underline{\mathbb{A}}$ 52'17	
min. Earth dist.	978 Sep 03 j 12:11	23° \mathbb{H} 53'39	0.40074 AU		983 Sep 29 j 02:51	0° \mathbb{M}	
greatest brilliancy	978 Sep 08 j 16:15	22° \mathbb{H} 19'48	-2.7m	evening set	983 Oct 14 j 06:44	10° \mathbb{M} 44'28	
opposition	978 Sep 10 j 00:50	21° \mathbb{H} 55'01	-4°-55'-49	max. Earth dist.	983 Oct 29 j 19:51	21° \mathbb{M} 59'02	2.44254 AU
direct	978 Oct 10 j 09:37	16° \mathbb{H} 24'33			983 Nov 09 j 17:22	0° \mathbb{A}	
	978 Nov 30 j 10:53	0° \mathbb{Y}					
asc. node	978 Dec 04 j 21:20	2° \mathbb{Y} 02'54		conjunction	983 Dec 08 j 05:11	21° \mathbb{A} 25'58	0°-42'-17
	979 Jan 25 j 13:02	0° \mathbb{B}		minimum elong	983 Dec 08 j 03:00	21° \mathbb{A} 21'49	0°42'16
	979 Mar 16 j 09:45	0° \mathbb{H}			983 Dec 19 j 09:18	0° \mathbb{Z}	
	979 May 04 j 03:48	0° \mathbb{Z}			984 Jan 26 j 21:10	0° \approx	
	979 Jun 21 j 10:44	0° Ω		morning rise	984 Feb 09 j 15:41	10° \approx 49'53	

	984 Mar 05 j 01:19	0°♄		direct	989 May 13 j 17:27	9°♊08'15	
	984 Apr 12 j 19:06	0°♅		desc. node	989 May 19 j 08:10	9°♊20'40	
	984 May 22 j 23:56	0°♆			989 Jul 17 j 20:32	0°♋	
	984 Jul 04 j 13:58	0°♇			989 Sep 04 j 05:03	0°♌	
asc. node	984 Jul 26 j 17:50	14°♇44'12			989 Oct 15 j 20:04	0°♍	
	984 Aug 19 j 22:07	0°♈			989 Nov 24 j 03:31	0°♎	
	984 Oct 13 j 13:46	0°♉			990 Jan 01 j 23:58	0°♏	
retrograde	984 Dec 11 j 22:34	16°♉29'58			990 Feb 10 j 14:02	0°♐	
opposition	985 Jan 21 j 00:28	6°♉46'39	4°33'09	asc. node	990 Mar 18 j 15:22	26°♐22'50	
greatest brilliancy	985 Jan 20 j 22:03	6°♉49'05	-1.2m		990 Mar 23 j 16:46	0°♑	
min. Earth dist.	985 Jan 20 j 19:53	6°♉51'15	0.67597 AU	evening set	990 Apr 18 j 19:01	18°♑21'24	
	985 Feb 09 j 01:17	30°♊08'50			990 May 05 j 17:25	0°♒	
direct	985 Mar 02 j 15:17	26°♊59'52					
	985 Mar 26 j 02:36	0°♋		conjunction	990 Jun 11 j 01:51	24°♒21'43	0°46'08
	985 Jun 04 j 17:47	0°♌		minimum elong	990 Jun 11 j 00:19	24°♒19'12	0°46'06
	985 Jul 25 j 10:29	0°♍			990 Jun 19 j 15:39	0°♓	
desc. node	985 Aug 14 j 10:36	12°♍57'24		max. Earth dist.	990 Jun 29 j 04:26	6°♓13'42	2.62607 AU
	985 Sep 08 j 13:42	0°♎		morning rise	990 Jul 29 j 19:09	25°♓58'17	
	985 Oct 20 j 07:03	0°♏			990 Aug 05 j 02:37	0°♔	
	985 Nov 28 j 18:37	0°♐			990 Sep 21 j 16:06	0°♕	
evening set	985 Dec 09 j 22:57	8°♐42'09			990 Nov 09 j 06:32	0°♖	
	986 Jan 06 j 00:47	0°♑			990 Dec 29 j 21:32	0°♗	
	986 Feb 13 j 00:55	0°♒			991 Feb 25 j 15:33	0°♘	
				desc. node	991 Apr 06 j 07:02	13°♘14'28	
conjunction	986 Feb 14 j 10:12	1°♒05'20	-1°-1'-15	retrograde	991 Apr 23 j 03:23	14°♘53'31	
minimum elong	986 Feb 14 j 12:17	1°♒09'27	1°01'16	opposition	991 May 25 j 22:53	8°♘46'07	-2°-46'00
	986 Mar 23 j 17:05	0°♓		greatest brilliancy	991 May 27 j 02:27	8°♘24'14	-2.4m
max. Earth dist.	986 Apr 03 j 10:10	8°♓08'06	2.39407 AU	min. Earth dist.	991 Jun 02 j 23:46	6°♘14'00	0.44062 AU
morning rise	986 Apr 24 j 14:49	23°♓57'31		direct	991 Jun 30 j 14:01	1°♘22'24	
	986 May 02 j 20:27	0°♔			991 Sep 13 j 13:49	0°♙	
asc. node	986 Jun 13 j 18:07	29°♔46'30			991 Oct 28 j 05:05	0°♚	
	986 Jun 14 j 01:56	0°♕			991 Dec 08 j 19:52	0°♛	
	986 Jul 28 j 21:52	0°♖			992 Jan 19 j 09:02	0°♜	
	986 Sep 15 j 03:46	0°♗		asc. node	992 Feb 03 j 14:37	10°♜49'30	
	986 Nov 09 j 07:28	0°♘			992 Mar 02 j 01:06	0°♝	
retrograde	987 Jan 16 j 07:10	19°♘53'34			992 Apr 15 j 06:55	0°♞	
opposition	987 Feb 24 j 10:02	10°♘48'46	4°05'07		992 May 31 j 00:59	0°♟	
greatest brilliancy	987 Feb 25 j 02:14	10°♘32'54	-1.3m	evening set	992 Jun 02 j 07:33	1°♟28'13	
min. Earth dist.	987 Feb 28 j 02:20	9°♘22'16	0.65494 AU		992 Jul 16 j 19:24	0°♠	
direct	987 Apr 06 j 19:29	0°♙46'36					
	987 Jun 30 j 02:35	0°♚		conjunction	992 Jul 20 j 01:39	2°♠04'39	1°08'11
desc. node	987 Jul 02 j 09:20	1°♚16'31		minimum elong	992 Jul 20 j 01:12	2°♠03'57	1°08'10
	987 Aug 17 j 20:15	0°♛		max. Earth dist.	992 Jul 22 j 17:41	3°♠46'39	2.67218 AU
	987 Sep 29 j 15:13	0°♜			992 Sep 01 j 21:55	0°♞	
	987 Nov 08 j 10:42	0°♝		morning rise	992 Sep 03 j 03:02	0°♞46'24	
	987 Dec 16 j 20:02	0°♞			992 Oct 18 j 19:00	0°♟	
	988 Jan 23 j 23:38	0°♏			992 Dec 04 j 05:22	0°♠	
evening set	988 Feb 19 j 00:04	20°♏09'56			993 Jan 19 j 09:42	0°♡	
	988 Mar 02 j 21:24	0°♐		desc. node	993 Feb 21 j 07:15	21°♡15'35	
	988 Apr 12 j 07:48	0°♑			993 Mar 06 j 23:50	0°♢	
					993 Apr 25 j 05:25	0°♣	
conjunction	988 Apr 22 j 04:29	7°♑06'32	0°-5'-23	retrograde	993 Jul 10 j 18:42	27°♣41'38	
minimum elong	988 Apr 22 j 04:50	7°♑07'09	0°05'24	min. Earth dist.	993 Aug 08 j 00:09	23°♣04'56	0.37551 AU
behind sun begin	988 Apr 21 j 04:57	6°♑24'22		opposition	993 Aug 10 j 10:38	22°♣25'37	-6°-43'-47
behind sun end	988 Apr 23 j 04:42	7°♑49'54		greatest brilliancy	993 Aug 09 j 21:10	22°♣34'41	-2.9m
asc. node	988 Apr 30 j 17:11	13°♑11'22		direct	993 Sep 08 j 23:13	17°♣30'03	
	988 May 24 j 18:09	0°♒			993 Oct 26 j 13:43	0°♤	
max. Earth dist.	988 May 30 j 03:57	3°♒43'00	2.52721 AU		993 Dec 20 j 01:54	0°♥	
morning rise	988 Jun 18 j 05:05	16°♒37'47		asc. node	993 Dec 21 j 13:34	0°♥54'19	
	988 Jul 08 j 08:35	0°♓			994 Feb 06 j 01:15	0°♦	
	988 Aug 24 j 02:35	0°♔			994 Mar 25 j 06:30	0°♧	
	988 Oct 12 j 07:46	0°♕			994 May 11 j 18:44	0°♨	
	988 Dec 05 j 07:19	0°♖			994 Jun 28 j 10:58	0°♩	
retrograde	989 Feb 25 j 14:28	26°♖42'06		evening set	994 Jul 11 j 02:19	7°♩58'43	
opposition	989 Apr 03 j 10:25	18°♖42'52	2°00'02		994 Aug 14 j 17:30	0°♪	
greatest brilliancy	989 Apr 04 j 05:52	18°♖24'47	-1.7m	max. Earth dist.	994 Aug 14 j 19:49	0°♪03'41	2.66384 AU
min. Earth dist.	989 Apr 10 j 15:08	16°♖02'19	0.56969 AU				

conjunction	994 Aug 25 j 18:35	7° \mathbb{M} 05'25	1°02'40			999 Nov 04 j 18:50	0° \mathcal{O}	
minimum elong	994 Aug 25 j 19:27	7° \mathbb{M} 06'48	1°02'40	retrograde		999 Nov 29 j 14:42	3° \mathcal{O} 33'48	
	994 Sep 29 j 23:51	0° $\underline{\mathcal{A}}$				999 Dec 22 j 14:39	30° \mathbb{R} \mathcal{E}	
morning rise	994 Oct 09 j 10:02	6° $\underline{\mathcal{A}}$ 13'12		min. Earth dist.		1000 Jan 07 j 00:58	24° \mathcal{E} 22'48	0.66602 AU
	994 Nov 13 j 21:05	0° \mathbb{M}		opposition		1000 Jan 08 j 18:14	23° \mathcal{E} 41'21	4°22'22
	994 Dec 27 j 07:56	0° \mathcal{A}		greatest brilliancy		1000 Jan 08 j 08:26	23° \mathcal{E} 51'12	-1.3m
desc. node	995 Jan 09 j 06:11	9° \mathcal{A} 06'34		direct		1000 Feb 17 j 16:20	14° \mathcal{E} 08'13	
	995 Feb 07 j 12:10	0° \mathcal{E}				1000 Apr 17 j 14:50	0° \mathcal{O}	
	995 Mar 20 j 19:17	0° \approx				1000 Jun 14 j 11:11	0° \mathbb{M}	
	995 May 01 j 00:52	0° \mathcal{H}				1000 Aug 02 j 10:31	0° $\underline{\mathcal{A}}$	
	995 Jun 13 j 04:28	0° \mathbb{Y}		desc. node		1000 Aug 31 j 02:41	18° $\underline{\mathcal{A}}$ 59'35	
	995 Aug 05 j 05:07	0° \mathcal{B}				1000 Sep 16 j 02:10	0° \mathbb{M}	
retrograde	995 Sep 12 j 03:41	9° \mathcal{B} 00'23				1000 Oct 27 j 17:17	0° \mathcal{A}	
min. Earth dist.	995 Oct 10 j 17:09	3° \mathcal{B} 22'19	0.47455 AU	evening set		1000 Nov 15 j 06:35	13° \mathcal{A} 55'41	
opposition	995 Oct 18 j 21:24	0° \mathcal{B} 27'16	-1°-7'-2			1000 Dec 06 j 05:39	0° \mathcal{E}	
greatest brilliancy	995 Oct 18 j 09:23	0° \mathcal{B} 38'02	-2.3m	max. Earth dist.		1000 Dec 29 j 11:13	18° \mathcal{E} 07'29	2.37433 AU
	995 Oct 20 j 04:00	30° \mathbb{R} \mathbb{Y}				1001 Jan 13 j 13:09	0° \approx	
asc. node	995 Nov 08 j 12:02	24° \mathbb{Y} 35'35						
direct	995 Nov 21 j 04:13	23° \mathbb{Y} 30'42		conjunction		1001 Jan 16 j 13:47	2° \approx 23'17	-1°-4'-13
	995 Dec 25 j 08:53	0° \mathcal{B}		minimum elong		1001 Jan 16 j 12:53	2° \approx 21'31	1°04'14
	996 Feb 27 j 04:19	0° \mathbb{I}				1001 Feb 20 j 13:57	0° \mathcal{H}	
	996 Apr 19 j 12:36	0° \mathcal{E}		morning rise		1001 Mar 27 j 19:43	27° \mathcal{H} 23'06	
	996 Jun 08 j 07:32	0° \mathcal{O}				1001 Mar 31 j 05:41	0° \mathbb{Y}	
	996 Jul 26 j 09:55	0° \mathbb{M}				1001 May 10 j 08:11	0° \mathcal{B}	
evening set	996 Aug 16 j 10:36	13° \mathbb{M} 28'47				1001 Jun 21 j 14:32	0° \mathbb{I}	
max. Earth dist.	996 Sep 08 j 06:02	28° \mathbb{M} 23'54	2.60219 AU	asc. node		1001 Jun 30 j 09:33	6° \mathbb{I} 00'53	
	996 Sep 10 j 16:05	0° $\underline{\mathcal{A}}$				1001 Aug 05 j 18:18	0° \mathcal{E}	
						1001 Sep 24 j 08:13	0° \mathcal{O}	
conjunction	996 Oct 01 j 23:42	14° $\underline{\mathcal{A}}$ 17'12	0°31'42			1001 Nov 26 j 12:23	0° \mathbb{M}	
minimum elong	996 Oct 02 j 00:46	14° $\underline{\mathcal{A}}$ 19'00	0°31'41	retrograde		1002 Jan 02 j 04:59	6° \mathbb{M} 58'03	
	996 Oct 24 j 21:31	0° \mathbb{M}				1002 Feb 04 j 15:20	30° \mathbb{R} \mathcal{O}	
morning rise	996 Nov 18 j 20:14	17° \mathbb{M} 32'54		opposition		1002 Feb 10 j 19:46	27° \mathcal{O} 35'38	4°25'38
desc. node	996 Nov 26 j 04:43	22° \mathbb{M} 48'26		greatest brilliancy		1002 Feb 11 j 05:12	27° \mathcal{O} 26'17	-1.2m
	996 Dec 06 j 03:59	0° \mathcal{A}		min. Earth dist.		1002 Feb 12 j 23:39	26° \mathcal{O} 44'15	0.67099 AU
	997 Jan 15 j 18:50	0° \mathcal{E}		direct		1002 Mar 24 j 01:52	17° \mathcal{O} 36'04	
	997 Feb 24 j 06:41	0° \approx				1002 May 14 j 03:05	0° \mathbb{M}	
	997 Apr 04 j 08:35	0° \mathcal{H}				1002 Jul 10 j 17:46	0° $\underline{\mathcal{A}}$	
	997 May 14 j 00:12	0° \mathbb{Y}		desc. node		1002 Jul 19 j 01:01	5° $\underline{\mathcal{A}}$ 02'17	
	997 Jun 24 j 16:54	0° \mathcal{B}				1002 Aug 26 j 11:27	0° \mathbb{M}	
	997 Aug 10 j 13:48	0° \mathbb{I}				1002 Oct 07 j 16:48	0° \mathcal{A}	
asc. node	997 Sep 25 j 11:45	21° \mathbb{I} 35'56				1002 Nov 16 j 07:35	0° \mathcal{E}	
retrograde	997 Oct 24 j 16:12	26° \mathbb{I} 46'17				1002 Dec 24 j 14:31	0° \approx	
min. Earth dist.	997 Nov 27 j 16:23	19° \mathbb{I} 04'30	0.59620 AU	greatest brilliancy		1003 Jan 13 j 15:51	15° \approx 50'31	1.2m
greatest brilliancy	997 Dec 02 j 08:09	17° \mathbb{I} 13'46	-1.6m	evening set		1003 Jan 22 j 06:53	22° \approx 38'29	
opposition	997 Dec 03 j 04:07	16° \mathbb{I} 53'57	2°49'09			1003 Jan 31 j 15:38	0° \mathcal{H}	
direct	998 Jan 09 j 10:35	8° \mathbb{I} 16'09				1003 Mar 11 j 09:53	0° \mathbb{Y}	
	998 Mar 22 j 14:26	0° \mathcal{E}						
	998 May 17 j 22:06	0° \mathcal{O}		conjunction		1003 Mar 30 j 01:01	14° \mathbb{Y} 03'01	0°-30'-36
	998 Jul 07 j 04:26	0° \mathbb{M}		minimum elong		1003 Mar 30 j 03:17	14° \mathbb{Y} 07'16	0°30'35
	998 Aug 23 j 02:21	0° $\underline{\mathcal{A}}$				1003 Apr 20 j 16:03	0° \mathcal{B}	
evening set	998 Sep 26 j 03:45	23° $\underline{\mathcal{A}}$ 00'13		max. Earth dist.		1003 May 15 j 09:39	17° \mathcal{B} 44'20	2.47628 AU
	998 Oct 06 j 05:07	0° \mathbb{M}		asc. node		1003 May 18 j 09:00	19° \mathcal{B} 50'05	
max. Earth dist.	998 Oct 11 j 02:26	3° \mathbb{M} 26'01	2.49331 AU	morning rise		1003 May 30 j 21:51	28° \mathcal{B} 35'16	
desc. node	998 Oct 14 j 03:44	5° \mathbb{M} 35'23				1003 Jun 01 j 22:49	0° \mathbb{I}	
						1003 Jul 16 j 12:50	0° \mathcal{E}	
conjunction	998 Nov 16 j 13:13	29° \mathbb{M} 43'14	0°-20'-34			1003 Sep 01 j 15:16	0° \mathcal{O}	
minimum elong	998 Nov 16 j 12:09	29° \mathbb{M} 41'17	0°20'35			1003 Oct 22 j 04:58	0° \mathbb{M}	
	998 Nov 16 j 22:19	0° \mathcal{A}				1003 Dec 21 j 08:21	0° $\underline{\mathcal{A}}$	
	998 Dec 26 j 18:47	0° \mathcal{E}		retrograde		1004 Feb 09 j 09:14	11° $\underline{\mathcal{A}}$ 46'43	
morning rise	999 Jan 13 j 00:43	13° \mathcal{E} 17'45		opposition		1004 Mar 18 j 06:59	3° $\underline{\mathcal{A}}$ 17'39	3°02'58
	999 Feb 03 j 11:24	0° \approx		greatest brilliancy		1004 Mar 19 j 04:57	2° $\underline{\mathcal{A}}$ 56'39	-1.5m
	999 Mar 13 j 19:29	0° \mathcal{H}		min. Earth dist.		1004 Mar 24 j 05:05	1° $\underline{\mathcal{A}}$ 01'55	0.61012 AU
	999 Apr 21 j 16:15	0° \mathbb{Y}				1004 Mar 26 j 23:33	30° \mathbb{R} \mathbb{M}	
	999 Jun 01 j 00:52	0° \mathcal{B}		direct		1004 Apr 28 j 07:12	23° \mathbb{M} 24'39	
	999 Jul 14 j 00:54	0° \mathbb{I}				1004 Jun 01 j 18:39	0° $\underline{\mathcal{A}}$	
asc. node	999 Aug 13 j 11:16	19° \mathbb{I} 35'49		desc. node		1004 Jun 04 j 23:57	1° $\underline{\mathcal{A}}$ 09'35	
	999 Aug 30 j 20:48	0° \mathcal{E}				1004 Jul 31 j 08:30	0° \mathbb{M}	

	1004 Sep 14 j 06:57	0°♊			1009 Oct 06 j 21:47	0°♎		
	1004 Oct 24 j 21:13	0°♋			1009 Nov 21 j 06:13	0°♌		
	1004 Dec 02 j 16:24	0°♍			1010 Jan 04 j 11:54	0°♊		
	1005 Jan 10 j 03:51	0°♈		desc. node	1010 Jan 25 j 21:30	14°♊45'39		
	1005 Feb 18 j 09:28	0°♏			1010 Feb 16 j 19:00	0°♋		
evening set	1005 Mar 28 j 15:00	28°♏10'18			1010 Mar 31 j 14:54	0°♍		
	1005 Mar 31 j 03:56	0°♉			1010 May 14 j 06:58	0°♈		
asc. node	1005 Apr 04 j 07:59	2°♉59'28			1010 Jul 03 j 01:48	0°♏		
	1005 May 12 j 21:17	0°♐		retrograde	1010 Aug 21 j 16:34	14°♏34'08		
				min. Earth dist.	1010 Sep 17 j 13:49	9°♏44'21	0.42422 AU	
conjunction	1005 May 24 j 07:57	7°♐48'06	0°29'30	greatest brilliancy	1010 Sep 24 j 00:58	7°♏39'00	-2.6m	
minimum elong	1005 May 24 j 06:34	7°♐45'47	0°29'30	opposition	1010 Sep 25 j 07:04	7°♏14'32	-3°-30'-40	
max. Earth dist.	1005 Jun 18 j 14:46	24°♐43'47	2.59330 AU	direct	1010 Oct 26 j 14:33	1°♏13'37		
	1005 Jun 26 j 14:37	0°♑		asc. node	1010 Nov 25 j 05:18	6°♏19'43		
morning rise	1005 Jul 14 j 14:44	11°♑44'49			1011 Jan 16 j 16:59	0°♉		
	1005 Aug 12 j 01:53	0°♒			1011 Mar 10 j 03:40	0°♐		
	1005 Sep 29 j 01:42	0°♑			1011 Apr 28 j 21:00	0°♑		
	1005 Nov 17 j 23:48	0°♎			1011 Jun 16 j 14:40	0°♒		
	1006 Jan 11 j 16:47	0°♌		evening set	1011 Aug 02 j 19:44	29°♒41'40		
retrograde	1006 Mar 29 j 08:17	24°♌05'34			1011 Aug 03 j 07:14	0°♑		
desc. node	1006 Apr 22 j 23:47	20°♌21'03		max. Earth dist.	1011 Aug 29 j 22:59	17°♑10'18	2.63247 AU	
opposition	1006 May 02 j 23:12	17°♌07'40	0°-30'-50					
greatest brilliancy	1006 May 03 j 05:28	17°♌02'16	-2.1m	conjunction	1011 Sep 17 j 15:54	29°♑26'20	0°46'36	
min. Earth dist.	1006 May 11 j 09:48	14°♌13'21	0.49275 AU	minimum elong	1011 Sep 17 j 17:06	29°♑28'18	0°46'36	
direct	1006 Jun 10 j 00:05	8°♌34'48			1011 Sep 18 j 12:16	0°♎		
	1006 Aug 12 j 20:47	0°♊			1011 Nov 01 j 22:34	0°♌		
	1006 Sep 28 j 11:39	0°♋		morning rise	1011 Nov 02 j 17:13	0°♌32'08		
	1006 Nov 08 j 16:18	0°♍		desc. node	1011 Dec 13 j 20:33	29°♌28'35		
	1006 Dec 18 j 16:22	0°♈			1011 Dec 14 j 14:04	0°♊		
	1007 Jan 28 j 03:55	0°♏			1012 Jan 24 j 16:27	0°♋		
asc. node	1007 Feb 20 j 05:35	16°♏40'38			1012 Mar 04 j 16:37	0°♍		
	1007 Mar 11 j 00:48	0°♉			1012 Apr 13 j 07:32	0°♈		
	1007 Apr 23 j 16:15	0°♐			1012 May 23 j 16:05	0°♏		
evening set	1007 May 17 j 19:10	16°♐05'00			1012 Jul 05 j 20:39	0°♉		
	1007 Jun 08 j 00:30	0°♑			1012 Aug 28 j 05:25	0°♐		
				retrograde	1012 Oct 09 j 03:02	10°♐16'58		
conjunction	1007 Jul 06 j 05:28	18°♑14'14	1°03'05	asc. node	1012 Oct 12 j 03:46	10°♐12'58		
minimum elong	1007 Jul 06 j 04:29	18°♑12'39	1°03'04	min. Earth dist.	1012 Nov 10 j 02:22	3°♐19'10	0.55321 AU	
max. Earth dist.	1007 Jul 14 j 14:20	23°♑36'19	2.66072 AU	opposition	1012 Nov 16 j 21:36	0°♐40'59	1°39'04	
	1007 Jul 24 j 14:19	0°♒		greatest brilliancy	1012 Nov 16 j 05:59	0°♐56'10	-1.8m	
morning rise	1007 Aug 21 j 06:53	17°♒37'36			1012 Nov 18 j 16:07	30°♒♌		
	1007 Sep 09 j 18:59	0°♑		direct	1012 Dec 22 j 18:18	22°♌35'45		
	1007 Oct 27 j 03:43	0°♎			1013 Jan 29 j 09:44	0°♐		
	1007 Dec 13 j 16:50	0°♌			1013 Apr 03 j 16:26	0°♑		
	1008 Jan 31 j 03:43	0°♊			1013 May 26 j 08:48	0°♒		
desc. node	1008 Mar 09 j 22:47	22°♊48'18			1013 Jul 14 j 13:09	0°♑		
	1008 Mar 23 j 01:16	0°♋			1013 Aug 30 j 03:01	0°♎		
retrograde	1008 Jun 08 j 09:39	26°♋20'49		evening set	1013 Sep 09 j 13:08	6°♎56'30		
opposition	1008 Jul 08 j 17:13	21°♋20'18	-6°-22'-21	max. Earth dist.	1013 Sep 26 j 17:50	18°♎35'15	2.54079 AU	
greatest brilliancy	1008 Jul 09 j 13:48	21°♋06'23	-2.8m		1013 Oct 13 j 05:56	0°♌		
min. Earth dist.	1008 Jul 11 j 17:52	20°♋31'15	0.38073 AU					
direct	1008 Aug 08 j 15:40	15°♋59'35		conjunction	1013 Oct 28 j 10:08	10°♌41'40	0°01'30	
	1008 Sep 27 j 05:14	0°♍		minimum elong	1013 Oct 28 j 10:11	10°♌41'44	0°01'29	
	1008 Nov 17 j 13:03	0°♈		behind sun begin	1013 Oct 27 j 13:00	10°♌04'07		
	1009 Jan 01 j 22:27	0°♏		behind sun end	1013 Oct 29 j 07:21	11°♌19'24		
asc. node	1009 Jan 07 j 05:02	3°♏32'09		desc. node	1013 Oct 30 j 19:27	12°♌23'43		
	1009 Feb 15 j 19:29	0°♉			1013 Nov 24 j 03:32	0°♊		
	1009 Apr 02 j 11:14	0°♐		morning rise	1013 Dec 20 j 02:24	19°♊17'00		
	1009 May 19 j 02:34	0°♑			1014 Jan 03 j 06:13	0°♋		
evening set	1009 Jun 26 j 11:55	24°♑23'41			1014 Feb 11 j 04:58	0°♍		
	1009 Jul 05 j 08:03	0°♒			1014 Mar 21 j 18:14	0°♈		
max. Earth dist.	1009 Aug 05 j 19:54	20°♒00'24	2.67351 AU		1014 Apr 29 j 19:30	0°♏		
					1014 Jun 09 j 10:46	0°♉		
conjunction	1009 Aug 11 j 15:17	23°♒42'31	1°07'54		1014 Jul 23 j 04:58	0°♐		
minimum elong	1009 Aug 11 j 15:43	23°♒43'12	1°07'54	asc. node	1014 Aug 30 j 02:25	23°♐02'39		
	1009 Aug 21 j 11:34	0°♑			1014 Sep 12 j 01:30	0°♑		
morning rise	1009 Sep 25 j 01:29	22°♑17'06		retrograde	1014 Nov 16 j 02:00	20°♑09'21		

min. Earth dist.	1014 Dec 22 j 22:09	11° \mathfrak{G} 29'40	0.64625 AU	conjunction	1020 May 04 j 13:51	19° \mathfrak{B} 15'47	0°08'29
greatest brilliancy	1014 Dec 25 j 11:42	10° \mathfrak{G} 27'53	-1.4m	minimum elong	1020 May 04 j 13:19	19° \mathfrak{B} 14'52	0°08'29
opposition	1014 Dec 26 j 03:39	10° \mathfrak{G} 11'51	3°58'43	behind sun begin	1020 May 03 j 16:43	18° \mathfrak{B} 38'44	
direct	1015 Feb 03 j 04:50	0° \mathfrak{G} 56'26		behind sun end	1020 May 05 j 09:56	19° \mathfrak{B} 50'58	
	1015 May 01 j 14:21	0° \mathfrak{Q}			1020 May 20 j 00:37	0° \mathfrak{II}	
	1015 Jun 24 j 02:29	0° \mathfrak{M}		max. Earth dist.	1020 Jun 06 j 23:19	12° \mathfrak{II} 14'37	2.55274 AU
	1015 Aug 11 j 00:35	0° \mathfrak{A}		morning rise	1020 Jun 28 j 07:02	26° \mathfrak{II} 29'31	
desc. node	1015 Sep 17 j 18:15	25° \mathfrak{A} 23'06			1020 Jul 03 j 14:43	0° \mathfrak{G}	
	1015 Sep 24 j 09:19	0° \mathfrak{M}			1020 Aug 19 j 04:49	0° \mathfrak{Q}	
evening set	1015 Oct 25 j 13:02	22° \mathfrak{M} 17'38			1020 Oct 06 j 20:20	0° \mathfrak{M}	
	1015 Nov 05 j 00:22	0° \mathfrak{X}			1020 Nov 27 j 20:42	0° \mathfrak{A}	
max. Earth dist.	1015 Nov 13 j 05:29	6° \mathfrak{X} 06'54	2.41452 AU		1021 Feb 01 j 04:20	0° \mathfrak{M}	
	1015 Dec 14 j 15:15	0° \mathfrak{C}		retrograde	1021 Mar 08 j 08:08	6° \mathfrak{M} 20'17	
					1021 Apr 09 j 18:12	30° \mathfrak{R} \mathfrak{A}	
conjunction	1015 Dec 21 j 22:05	5° \mathfrak{C} 38'12	0°-52'-57	opposition	1021 Apr 13 j 10:49	28° \mathfrak{A} 40'30	1°12'51
minimum elong	1015 Dec 21 j 19:43	5° \mathfrak{C} 33'37	0°52'57	greatest brilliancy	1021 Apr 14 j 00:33	28° \mathfrak{A} 27'58	-1.8m
	1016 Jan 22 j 01:35	0° \mathfrak{A}		min. Earth dist.	1021 Apr 21 j 05:21	25° \mathfrak{A} 50'46	0.54391 AU
morning rise	1016 Feb 26 j 13:47	27° \mathfrak{A} 57'11		desc. node	1021 May 09 j 14:58	20° \mathfrak{A} 37'43	
	1016 Feb 29 j 04:24	0° \mathfrak{H}		direct	1021 May 23 j 02:36	19° \mathfrak{A} 22'33	
	1016 Apr 07 j 20:56	0° \mathfrak{Y}			1021 Jul 05 j 16:35	0° \mathfrak{M}	
	1016 May 17 j 23:50	0° \mathfrak{B}			1021 Aug 27 j 23:22	0° \mathfrak{X}	
	1016 Jun 29 j 09:16	0° \mathfrak{II}			1021 Oct 09 j 17:04	0° \mathfrak{C}	
asc. node	1016 Jul 17 j 02:15	11° \mathfrak{II} 56'08			1021 Nov 18 j 12:04	0° \mathfrak{A}	
	1016 Aug 14 j 02:45	0° \mathfrak{G}			1021 Dec 27 j 15:53	0° \mathfrak{H}	
	1016 Oct 05 j 02:28	0° \mathfrak{Q}			1022 Feb 05 j 11:37	0° \mathfrak{Y}	
retrograde	1016 Dec 19 j 14:41	24° \mathfrak{Q} 14'29		asc. node	1022 Mar 08 j 23:00	22° \mathfrak{Y} 58'39	
opposition	1017 Jan 28 j 13:37	14° \mathfrak{Q} 37'34	4°33'47		1022 Mar 18 j 18:54	0° \mathfrak{B}	
greatest brilliancy	1017 Jan 28 j 15:26	14° \mathfrak{Q} 35'45	-1.2m	evening set	1022 Apr 29 j 19:28	29° \mathfrak{B} 12'45	
min. Earth dist.	1017 Jan 29 j 04:56	14° \mathfrak{Q} 22'17	0.67706 AU		1022 Apr 30 j 23:15	0° \mathfrak{II}	
direct	1017 Mar 10 j 11:13	4° \mathfrak{Q} 45'08			1022 Jun 14 j 23:36	0° \mathfrak{G}	
	1017 May 28 j 12:10	0° \mathfrak{M}					
	1017 Jul 19 j 22:14	0° \mathfrak{A}		conjunction	1022 Jun 20 j 13:08	3° \mathfrak{G} 38'06	0°53'38
desc. node	1017 Aug 04 j 17:44	10° \mathfrak{A} 02'50		minimum elong	1022 Jun 20 j 11:44	3° \mathfrak{G} 35'49	0°53'38
	1017 Sep 03 j 13:17	0° \mathfrak{M}		max. Earth dist.	1022 Jul 05 j 00:38	13° \mathfrak{G} 02'15	2.64056 AU
	1017 Oct 15 j 10:40	0° \mathfrak{X}			1022 Jul 31 j 10:31	0° \mathfrak{Q}	
	1017 Nov 23 j 23:12	0° \mathfrak{C}		morning rise	1022 Aug 07 j 03:41	4° \mathfrak{Q} 16'53	
evening set	1017 Dec 25 j 03:54	24° \mathfrak{C} 25'42			1022 Sep 16 j 19:41	0° \mathfrak{M}	
	1018 Jan 01 j 05:13	0° \mathfrak{A}			1022 Nov 03 j 21:04	0° \mathfrak{A}	
	1018 Feb 08 j 05:12	0° \mathfrak{H}			1022 Dec 23 j 02:19	0° \mathfrak{M}	
					1023 Feb 13 j 19:28	0° \mathfrak{X}	
conjunction	1018 Mar 02 j 19:44	17° \mathfrak{H} 38'33	0°-52'-49	desc. node	1023 Mar 27 j 14:29	19° \mathfrak{X} 34'01	
minimum elong	1018 Mar 02 j 22:47	17° \mathfrak{H} 44'28	0°52'49	retrograde	1023 May 09 j 04:07	28° \mathfrak{X} 48'47	
	1018 Mar 18 j 21:22	0° \mathfrak{Y}		opposition	1023 Jun 09 j 19:22	23° \mathfrak{X} 10'41	-4°-11'-48
max. Earth dist.	1018 Apr 22 j 23:23	26° \mathfrak{Y} 17'47	2.42252 AU	greatest brilliancy	1023 Jun 11 j 05:00	22° \mathfrak{X} 45'33	-2.6m
	1018 Apr 28 j 00:46	0° \mathfrak{B}		min. Earth dist.	1023 Jun 16 j 18:52	21° \mathfrak{X} 05'57	0.41434 AU
morning rise	1018 May 08 j 18:50	7° \mathfrak{B} 47'49		direct	1023 Jul 13 j 19:59	16° \mathfrak{X} 33'11	
asc. node	1018 Jun 04 j 00:23	26° \mathfrak{B} 22'44			1023 Aug 30 j 14:34	0° \mathfrak{C}	
	1018 Jun 09 j 05:37	0° \mathfrak{II}			1023 Oct 19 j 15:57	0° \mathfrak{A}	
	1018 Jul 23 j 21:37	0° \mathfrak{G}			1023 Dec 01 j 22:47	0° \mathfrak{H}	
	1018 Sep 09 j 14:01	0° \mathfrak{Q}			1024 Jan 13 j 09:41	0° \mathfrak{Y}	
	1018 Nov 01 j 10:20	0° \mathfrak{M}		asc. node	1024 Jan 24 j 21:44	8° \mathfrak{Y} 03'40	
retrograde	1019 Jan 24 j 17:58	27° \mathfrak{M} 56'23			1024 Feb 25 j 15:34	0° \mathfrak{B}	
opposition	1019 Mar 04 j 11:38	19° \mathfrak{M} 02'55	3°46'37		1024 Apr 10 j 06:50	0° \mathfrak{II}	
greatest brilliancy	1019 Mar 05 j 06:40	18° \mathfrak{M} 44'24	-1.4m		1024 May 26 j 06:48	0° \mathfrak{G}	
min. Earth dist.	1019 Mar 08 j 23:10	17° \mathfrak{M} 18'19	0.64187 AU	evening set	1024 Jun 11 j 07:35	10° \mathfrak{G} 18'00	
direct	1019 Apr 14 j 19:37	9° \mathfrak{M} 01'56			1024 Jul 12 j 04:13	0° \mathfrak{Q}	
	1019 Jun 21 j 22:49	0° \mathfrak{A}					
desc. node	1019 Jun 22 j 16:34	0° \mathfrak{A} 22'45		conjunction	1024 Jul 28 j 08:59	10° \mathfrak{Q} 18'36	1°09'14
	1019 Aug 11 j 21:36	0° \mathfrak{M}		minimum elong	1024 Jul 28 j 08:52	10° \mathfrak{Q} 18'26	1°09'13
	1019 Sep 24 j 07:12	0° \mathfrak{X}		max. Earth dist.	1024 Jul 28 j 00:24	10° \mathfrak{Q} 04'57	2.67490 AU
	1019 Nov 03 j 08:22	0° \mathfrak{C}			1024 Aug 28 j 06:29	0° \mathfrak{M}	
	1019 Dec 11 j 20:21	0° \mathfrak{A}		morning rise	1024 Sep 11 j 01:55	8° \mathfrak{M} 50'06	
	1020 Jan 19 j 01:49	0° \mathfrak{H}			1024 Oct 13 j 22:59	0° \mathfrak{A}	
	1020 Feb 27 j 01:09	0° \mathfrak{Y}			1024 Nov 28 j 22:53	0° \mathfrak{M}	
evening set	1020 Mar 04 j 17:30	5° \mathfrak{Y} 02'29			1025 Jan 13 j 07:21	0° \mathfrak{X}	
	1020 Apr 07 j 13:01	0° \mathfrak{B}		desc. node	1025 Feb 11 j 13:42	19° \mathfrak{X} 29'06	
asc. node	1020 Apr 20 j 23:19	9° \mathfrak{B} 38'39			1025 Feb 27 j 08:56	0° \mathfrak{C}	

	1025 Apr 14 j 04:11	0°♊			1030 Oct 01 j 13:36	0°♍		
	1025 Jun 04 j 05:10	0°♋		desc. node	1030 Oct 04 j 11:13	2°♍02'03		
retrograde	1025 Jul 27 j 03:50	15°♋45'19		evening set	1030 Oct 06 j 04:45	3°♍15'06		
min. Earth dist.	1025 Aug 23 j 03:03	11°♋18'06	0.38606 AU	max. Earth dist.	1030 Oct 20 j 22:53	13°♍44'40	2.46555 AU	
greatest brilliancy	1025 Aug 26 j 23:25	10°♋12'07	-2.8m		1030 Nov 12 j 06:27	0°♊		
opposition	1025 Aug 28 j 03:00	9°♋52'18	-5°-53'-52					
direct	1025 Sep 26 j 22:47	4°♋42'27		conjunction	1030 Nov 28 j 09:54	12°♊01'49	0°-33'-13	
	1025 Dec 09 j 16:52	0°♑		minimum elong	1030 Nov 28 j 08:10	11°♊58'32	0°33'13	
asc. node	1025 Dec 11 j 20:43	1°♑10'28			1030 Dec 22 j 01:10	0°♊		
	1026 Jan 30 j 01:41	0°♉		morning rise	1031 Jan 28 j 03:00	28°♊48'52		
	1026 Mar 19 j 13:54	0°♈			1031 Jan 29 j 15:17	0°♊		
	1026 May 06 j 17:08	0°♄			1031 Mar 08 j 20:53	0°♋		
	1026 Jun 23 j 17:06	0°♌		greatest brilliancy	1031 Mar 11 j 08:45	1°♋57'01	1.2m	
evening set	1026 Jul 19 j 09:04	16°♌10'17			1031 Apr 16 j 15:09	0°♑		
	1026 Aug 10 j 02:48	0°♍			1031 May 26 j 20:01	0°♉		
max. Earth dist.	1026 Aug 20 j 05:30	6°♍29'15	2.65478 AU		1031 Jul 08 j 12:01	0°♈		
				asc. node	1031 Aug 03 j 17:09	17°♈15'23		
conjunction	1026 Sep 03 j 00:00	15°♍22'59	0°57'51		1031 Aug 24 j 05:59	0°♄		
minimum elong	1026 Sep 03 j 01:03	15°♍24'41	0°57'50		1031 Oct 20 j 12:09	0°♌		
	1026 Sep 25 j 08:26	0°♊		retrograde	1031 Dec 07 j 06:44	11°♌29'26		
morning rise	1026 Oct 17 j 23:47	15°♊03'19		opposition	1032 Jan 16 j 09:59	1°♌41'22	4°30'09	
	1026 Nov 09 j 01:37	0°♍		greatest brilliancy	1032 Jan 16 j 04:07	1°♌47'15	-1.2m	
	1026 Dec 22 j 04:59	0°♊		min. Earth dist.	1032 Jan 15 j 12:36	2°♌02'49	0.67289 AU	
desc. node	1026 Dec 30 j 12:07	5°♊53'19			1032 Jan 20 j 15:49	30°♌00'17		
	1027 Feb 01 j 23:01	0°♊		direct	1032 Feb 25 j 18:05	22°♌00'17		
	1027 Mar 14 j 17:04	0°♊			1032 Apr 05 j 22:46	0°♌		
	1027 Apr 24 j 05:02	0°♋			1032 Jun 08 j 06:34	0°♍		
	1027 Jun 04 j 22:00	0°♑			1032 Jul 28 j 05:45	0°♊		
	1027 Jul 21 j 19:08	0°♉		desc. node	1032 Aug 21 j 09:27	15°♊47'22		
retrograde	1027 Sep 22 j 21:56	21°♉26'59			1032 Sep 11 j 05:21	0°♍		
min. Earth dist.	1027 Oct 22 j 16:33	15°♉19'17	0.50340 AU		1032 Oct 22 j 22:59	0°♊		
asc. node	1027 Oct 29 j 20:17	12°♉40'05		evening set	1032 Nov 28 j 19:06	27°♊54'58		
opposition	1027 Oct 30 j 12:27	12°♉25'02	0°02'05		1032 Dec 01 j 11:47	0°♊		
greatest brilliancy	1026 Apr 19 j 17:41	19°♈24'55	4.5m		1033 Jan 08 j 18:47	0°♊		
direct	1027 Dec 03 j 18:17	5°♈01'19						
	1028 Feb 18 j 18:37	0°♈		conjunction	1033 Feb 01 j 15:33	18°♈51'23	-1°-4'-28	
	1028 Apr 13 j 14:40	0°♄		minimum elong	1033 Feb 01 j 16:23	18°♈53'02	1°04'29	
	1028 Jun 03 j 05:44	0°♌			1033 Feb 15 j 19:00	0°♋		
	1028 Jul 21 j 16:34	0°♍		max. Earth dist.	1033 Mar 05 j 05:01	13°♋37'31	2.37605 AU	
evening set	1028 Aug 24 j 23:31	22°♍02'53			1033 Mar 26 j 10:14	0°♑		
	1028 Sep 06 j 01:28	0°♊		morning rise	1033 Apr 12 j 21:55	13°♑15'30		
max. Earth dist.	1028 Sep 14 j 13:44	5°♊39'45	2.58218 AU		1033 May 05 j 11:51	0°♉		
					1033 Jun 16 j 16:02	0°♈		
conjunction	1028 Oct 11 j 04:16	23°♊42'45	0°21'31	asc. node	1033 Jun 20 j 17:12	2°♈47'21		
minimum elong	1028 Oct 11 j 05:05	23°♊44'09	0°21'30		1033 Jul 31 j 12:55	0°♄		
	1028 Oct 20 j 06:17	0°♍			1033 Sep 18 j 04:13	0°♌		
desc. node	1028 Nov 16 j 11:58	19°♍14'08			1033 Nov 14 j 11:18	0°♍		
morning rise	1028 Nov 29 j 10:40	28°♍34'47		retrograde	1034 Jan 10 j 05:09	14°♍47'45		
	1028 Dec 01 j 09:32	0°♊		opposition	1034 Feb 18 j 13:40	5°♍34'28	4°15'03	
	1029 Jan 10 j 19:51	0°♊		greatest brilliancy	1034 Feb 19 j 02:56	5°♍21'23	-1.3m	
	1029 Feb 19 j 02:23	0°♊		min. Earth dist.	1034 Feb 21 j 13:19	4°♍23'52	0.66344 AU	
	1029 Mar 29 j 22:53	0°♋			1034 Mar 05 j 13:23	30°♍00'17		
	1029 May 08 j 07:48	0°♑		direct	1034 Mar 31 j 22:08	25°♌32'52		
	1029 Jun 18 j 11:37	0°♉			1034 Apr 29 j 13:50	0°♍		
	1029 Aug 02 j 17:14	0°♈			1034 Jul 04 j 03:48	0°♊		
asc. node	1029 Sep 15 j 18:43	23°♈49'08		desc. node	1034 Jul 09 j 08:03	3°♊00'29		
	1029 Oct 01 j 09:47	0°♄			1034 Aug 21 j 00:30	0°♍		
retrograde	1029 Nov 02 j 01:12	5°♄53'55			1034 Oct 02 j 14:29	0°♊		
	1029 Dec 01 j 11:47	30°♄00'17			1034 Nov 11 j 08:39	0°♊		
min. Earth dist.	1029 Dec 07 j 02:51	27°♄50'11	0.61671 AU		1034 Dec 19 j 17:00	0°♊		
opposition	1029 Dec 11 j 19:49	25°♄57'27	3°19'54		1035 Jan 26 j 19:10	0°♋		
greatest brilliancy	1029 Dec 11 j 00:04	26°♄17'11	-1.5m	evening set	1035 Feb 07 j 02:25	8°♋49'27		
direct	1030 Jan 18 j 18:56	17°♄04'43			1035 Mar 06 j 14:35	0°♑		
	1030 Mar 12 j 13:09	0°♄						
	1030 May 11 j 20:59	0°♌		conjunction	1035 Apr 13 j 01:57	27°♑56'23	0°-16'-8	
	1030 Jul 02 j 02:11	0°♍		minimum elong	1035 Apr 13 j 03:08	27°♑58'32	0°16'09	
	1030 Aug 18 j 08:14	0°♊			1035 Apr 15 j 21:49	0°♉		

asc. node	1035 May 08 j 16:21	16°♄20'17		greatest brilliancy	1040 Jul 27 j 04:21	9°≈10'19	-2.9m
max. Earth dist.	1035 May 25 j 00:21	27°♄47'00	2.50503 AU	min. Earth dist.	1040 Jul 27 j 02:47	9°≈11'21	0.37382 AU
	1035 May 28 j 05:10	0°♄		direct	1040 Aug 25 j 20:55	4°≈13'58	
morning rise	1035 Jun 11 j 04:12	9°♄34'18			1040 Nov 06 j 11:01	0°♄	
	1035 Jul 11 j 17:43	0°♄			1040 Dec 25 j 09:40	0°♄	
	1035 Aug 27 j 13:34	0°♄		asc. node	1040 Dec 28 j 12:52	2°♄00'31	
	1035 Oct 16 j 05:13	0°♄			1041 Feb 09 j 17:35	0°♄	
	1035 Dec 11 j 00:42	0°♄			1041 Mar 28 j 03:40	0°♄	
retrograde	1036 Feb 18 j 23:03	20°♄35'06			1041 May 14 j 05:14	0°♄	
opposition	1036 Mar 27 j 07:13	12°♄21'31	2°28'55		1041 Jun 30 j 16:16	0°♄	
greatest brilliancy	1036 Mar 28 j 04:23	12°♄01'32	-1.6m	evening set	1041 Jul 04 j 21:42	2°♄40'24	
min. Earth dist.	1036 Apr 02 j 22:29	9°♄51'24	0.58894 AU	max. Earth dist.	1041 Aug 11 j 01:45	26°♄16'37	2.66921 AU
direct	1036 May 06 j 22:57	2°♄37'07			1041 Aug 16 j 21:33	0°♄	
desc. node	1036 May 26 j 07:11	4°♄53'11					
	1036 Jul 23 j 12:47	0°♄		conjunction	1041 Aug 19 j 17:30	1°♄48'44	1°05'18
	1036 Sep 08 j 04:06	0°♄		minimum elong	1041 Aug 19 j 18:12	1°♄49'52	1°05'18
	1036 Oct 19 j 07:56	0°♄			1041 Oct 02 j 06:01	0°♄	
	1036 Nov 27 j 09:27	0°≈		morning rise	1041 Oct 03 j 04:53	0°♄37'29	
	1037 Jan 05 j 01:05	0°♄			1041 Nov 16 j 08:45	0°♄	
	1037 Feb 13 j 10:17	0°♄			1041 Dec 30 j 03:58	0°♄	
asc. node	1037 Mar 25 j 14:33	29°♄28'58		desc. node	1042 Jan 16 j 04:58	11°♄53'58	
	1037 Mar 26 j 07:51	0°♄			1042 Feb 10 j 19:34	0°♄	
evening set	1037 Apr 09 j 22:30	10°♄23'28			1042 Mar 24 j 16:38	0°≈	
	1037 May 08 j 03:54	0°♄			1042 May 05 j 17:59	0°♄	
					1042 Jun 19 j 14:48	0°♄	
conjunction	1037 Jun 03 j 15:51	17°♄53'57	0°39'40	retrograde	1042 Sep 03 j 08:17	29°♄23'39	
minimum elong	1037 Jun 03 j 14:19	17°♄51'23	0°39'40	min. Earth dist.	1042 Oct 01 j 00:22	24°♄08'27	0.45132 AU
	1037 Jun 21 j 22:36	0°♄		greatest brilliancy	1042 Oct 08 j 07:36	21°♄38'13	-2.4m
max. Earth dist.	1037 Jun 24 j 20:58	1°♄55'27	2.61239 AU	opposition	1042 Oct 09 j 04:35	21°♄20'06	-2°-5'-42
morning rise	1037 Jul 23 j 10:12	20°♄26'48		direct	1042 Nov 10 j 15:05	14°♄47'35	
	1037 Aug 07 j 08:40	0°♄		asc. node	1042 Nov 15 j 11:14	14°♄56'47	
	1037 Sep 24 j 01:26	0°♄			1043 Jan 05 j 05:41	0°♄	
	1037 Nov 12 j 03:13	0°♄			1043 Mar 03 j 07:59	0°♄	
	1038 Jan 03 j 02:58	0°♄			1043 Apr 23 j 09:26	0°♄	
	1038 Mar 09 j 10:25	0°♄			1043 Jun 11 j 16:52	0°♄	
retrograde	1038 Apr 11 j 19:23	5°♄52'56			1043 Jul 29 j 15:22	0°♄	
desc. node	1038 Apr 13 j 05:45	5°♄52'11		evening set	1043 Aug 11 j 03:31	7°♄59'41	
	1038 May 13 j 13:18	30°♄		max. Earth dist.	1043 Sep 04 j 19:19	24°♄00'01	2.61680 AU
opposition	1038 May 15 j 11:32	29°♄22'04	-1°-44'-24		1043 Sep 13 j 21:49	0°♄	
greatest brilliancy	1038 May 16 j 06:56	29°♄06'01	-2.3m				
min. Earth dist.	1038 May 23 j 21:47	26°♄35'42	0.46371 AU	conjunction	1043 Sep 26 j 07:18	8°♄14'59	0°38'24
direct	1038 Jun 21 j 07:28	21°♄24'33		minimum elong	1043 Sep 26 j 08:27	8°♄16'55	0°38'22
	1038 Jul 28 j 20:41	0°♄			1043 Oct 28 j 06:30	0°♄	
	1038 Sep 20 j 04:21	0°♄		morning rise	1043 Nov 12 j 05:50	10°♄25'57	
	1038 Nov 01 j 22:33	0°≈		desc. node	1043 Dec 04 j 03:37	25°♄58'45	
	1038 Dec 12 j 16:46	0°♄			1043 Dec 09 j 17:46	0°♄	
	1039 Jan 22 j 16:22	0°♄			1044 Jan 19 j 14:24	0°♄	
asc. node	1039 Feb 10 j 13:45	13°♄33'31			1044 Feb 28 j 07:44	0°≈	
	1039 Mar 05 j 21:50	0°♄			1044 Apr 07 j 14:44	0°♄	
	1039 Apr 18 j 19:40	0°♄			1044 May 17 j 11:59	0°♄	
evening set	1039 May 27 j 08:48	25°♄27'52			1044 Jun 28 j 15:02	0°♄	
	1039 Jun 03 j 08:03	0°♄			1044 Aug 16 j 03:37	0°♄	
				asc. node	1044 Oct 02 j 10:31	18°♄45'09	
conjunction	1039 Jul 14 j 19:16	26°♄41'13	1°06'32	retrograde	1044 Oct 18 j 04:16	20°♄23'30	
minimum elong	1039 Jul 14 j 18:36	26°♄40'09	1°06'32	min. Earth dist.	1044 Nov 20 j 07:05	13°♄00'55	0.57788 AU
	1039 Jul 19 j 23:46	0°♄		opposition	1044 Nov 26 j 09:51	10°♄36'38	2°22'44
max. Earth dist.	1039 Jul 19 j 23:30	29°♄59'33	2.66811 AU	greatest brilliancy	1044 Nov 25 j 14:33	10°♄55'37	-1.7m
morning rise	1039 Aug 29 j 05:54	25°♄37'44		direct	1045 Jan 02 j 01:37	2°♄12'33	
	1039 Sep 05 j 02:52	0°♄			1045 Mar 27 j 05:14	0°♄	
	1039 Oct 22 j 04:44	0°♄			1045 May 20 j 19:22	0°♄	
	1039 Dec 08 j 01:57	0°♄			1045 Jul 09 j 14:53	0°♄	
	1040 Jan 24 j 02:40	0°♄			1045 Aug 25 j 10:21	0°♄	
desc. node	1040 Feb 29 j 05:33	22°♄34'56		evening set	1045 Sep 18 j 20:25	16°♄22'23	
	1040 Mar 12 j 10:00	0°♄		max. Earth dist.	1045 Oct 04 j 15:19	27°♄14'08	2.51521 AU
	1040 May 05 j 22:31	0°≈			1045 Oct 08 j 14:32	0°♄	
retrograde	1040 Jun 26 j 22:47	14°≈11'57		desc. node	1045 Oct 21 j 02:29	8°♄48'09	
opposition	1040 Jul 27 j 02:04	9°≈11'49	-6°-52'-53				

conjunction	1045 Nov 07 j 23:52	21° \mathbb{M} 38'20	0°-11'-3		1050 Oct 25 j 12:31	0° \mathbb{M}	
minimum elong	1045 Nov 07 j 23:19	21° \mathbb{M} 37'21	0°11'04		1050 Dec 29 j 18:00	0° \mathbb{L}	
behind sun begin	1045 Nov 07 j 06:53	21° \mathbb{M} 07'34		retrograde	1051 Feb 02 j 12:55	6° \mathbb{L} 12'56	
behind sun end	1045 Nov 08 j 15:46	22° \mathbb{M} 07'10			1051 Mar 06 j 06:37	30° \mathbb{R} \mathbb{M}	
	1045 Nov 19 j 10:39	0° \mathbb{J}		opposition	1051 Mar 12 j 20:06	27° \mathbb{M} 32'13	3°23'04
	1045 Dec 29 j 10:42	0° \mathbb{Z}		greatest brilliancy	1051 Mar 13 j 17:04	27° \mathbb{M} 11'59	-1.4m
morning rise	1046 Jan 02 j 03:42	2° \mathbb{Z} 50'08		min. Earth dist.	1051 Mar 18 j 02:31	25° \mathbb{M} 30'20	0.62547 AU
	1046 Feb 06 j 06:21	0° \approx		direct	1051 Apr 23 j 00:31	17° \mathbb{M} 34'43	
	1046 Mar 16 j 16:31	0° \mathbb{H}			1051 Jun 11 j 15:10	0° \mathbb{L}	
	1046 Apr 24 j 14:35	0° \mathbb{Y}		desc. node	1051 Jun 12 j 22:45	0° \mathbb{L} 34'44	
	1046 Jun 04 j 00:23	0° \mathbb{B}			1051 Aug 05 j 10:44	0° \mathbb{M}	
	1046 Jul 17 j 04:58	0° \mathbb{II}			1051 Sep 18 j 16:42	0° \mathbb{J}	
asc. node	1046 Aug 20 j 10:19	21° \mathbb{II} 38'16			1051 Oct 29 j 01:44	0° \mathbb{Z}	
	1046 Sep 03 j 21:05	0° \mathbb{S}			1051 Dec 06 j 17:49	0° \approx	
retrograde	1046 Nov 23 j 21:25	28° \mathbb{S} 23'30			1052 Jan 14 j 02:08	0° \mathbb{H}	
min. Earth dist.	1046 Dec 31 j 14:47	19° \mathbb{S} 26'24	0.65838 AU		1052 Feb 22 j 04:09	0° \mathbb{Y}	
greatest brilliancy	1047 Jan 02 j 11:57	18° \mathbb{S} 41'02	-1.3m	evening set	1052 Mar 18 j 14:07	18° \mathbb{Y} 56'24	
opposition	1047 Jan 03 j 00:49	18° \mathbb{S} 28'07	4°14'18		1052 Apr 02 j 18:25	0° \mathbb{B}	
direct	1047 Feb 11 j 14:21	9° \mathbb{S} 02'30		asc. node	1052 Apr 11 j 07:14	6° \mathbb{B} 08'06	
	1047 Apr 23 j 16:11	0° \mathbb{Q}			1052 May 15 j 07:47	0° \mathbb{II}	
	1047 Jun 18 j 11:20	0° \mathbb{M}					
	1047 Aug 06 j 00:48	0° \mathbb{L}		conjunction	1052 May 16 j 01:48	0° \mathbb{II} 30'58	0°21'05
desc. node	1047 Sep 08 j 01:17	21° \mathbb{L} 59'58		minimum elong	1052 May 16 j 00:41	0° \mathbb{II} 29'03	0°21'04
	1047 Sep 19 j 15:02	0° \mathbb{M}		max. Earth dist.	1052 Jun 13 j 22:55	20° \mathbb{II} 04'30	2.57607 AU
	1047 Oct 31 j 07:18	0° \mathbb{J}			1052 Jun 28 j 22:19	0° \mathbb{S}	
evening set	1047 Nov 06 j 11:41	4° \mathbb{J} 35'50		morning rise	1052 Jul 07 j 18:33	5° \mathbb{S} 47'54	
max. Earth dist.	1047 Dec 03 j 00:35	24° \mathbb{J} 42'17	2.38921 AU		1052 Aug 14 j 09:33	0° \mathbb{Q}	
	1047 Dec 09 j 21:37	0° \mathbb{Z}			1052 Oct 01 j 14:28	0° \mathbb{M}	
					1052 Nov 21 j 06:02	0° \mathbb{L}	
conjunction	1048 Jan 05 j 13:14	20° \mathbb{Z} 46'33	-1°00'-49		1053 Jan 17 j 19:49	0° \mathbb{M}	
minimum elong	1048 Jan 05 j 11:22	20° \mathbb{Z} 42'54	1°00'49	retrograde	1053 Mar 19 j 19:31	16° \mathbb{M} 33'17	
	1048 Jan 17 j 06:35	0° \approx		opposition	1053 Apr 24 j 03:52	9° \mathbb{M} 15'26	0°17'03
	1048 Feb 24 j 07:57	0° \mathbb{H}		greatest brilliancy	1053 Apr 22 j 23:16	9° \mathbb{M} 40'42	-2.0m
morning rise	1048 Mar 14 j 17:11	15° \mathbb{H} 08'55		desc. node	1053 Apr 29 j 22:31	7° \mathbb{M} 12'07	
	1048 Apr 02 j 23:18	0° \mathbb{Y}		min. Earth dist.	1053 May 02 j 09:54	6° \mathbb{M} 20'21	0.51613 AU
	1048 May 13 j 00:41	0° \mathbb{B}		direct	1053 Jun 02 j 00:24	0° \mathbb{M} 19'46	
	1048 Jun 24 j 06:32	0° \mathbb{II}			1053 Aug 19 j 13:04	0° \mathbb{J}	
asc. node	1048 Jul 07 j 08:55	8° \mathbb{II} 55'15			1053 Oct 03 j 01:30	0° \mathbb{Z}	
	1048 Aug 08 j 13:20	0° \mathbb{S}			1053 Nov 12 j 13:11	0° \approx	
	1048 Sep 27 j 20:18	0° \mathbb{Q}			1053 Dec 22 j 02:38	0° \mathbb{H}	
	1048 Dec 08 j 16:17	0° \mathbb{M}			1054 Jan 31 j 05:44	0° \mathbb{Y}	
retrograde	1048 Dec 27 j 09:11	2° \mathbb{M} 00'22		asc. node	1054 Feb 27 j 05:10	19° \mathbb{Y} 37'00	
	1049 Jan 13 j 21:07	30° \mathbb{R} \mathbb{Q}			1054 Mar 13 j 19:04	0° \mathbb{B}	
opposition	1049 Feb 05 j 04:01	22° \mathbb{Q} 30'58	4°30'22		1054 Apr 26 j 04:11	0° \mathbb{II}	
greatest brilliancy	1049 Feb 05 j 10:03	22° \mathbb{Q} 24'59	-1.2m	evening set	1054 May 10 j 06:38	9° \mathbb{II} 29'14	
min. Earth dist.	1049 Feb 06 j 15:09	21° \mathbb{Q} 56'03	0.67496 AU		1054 Jun 10 j 07:46	0° \mathbb{S}	
direct	1049 Mar 18 j 07:00	12° \mathbb{Q} 34'13					
	1049 May 19 j 23:29	0° \mathbb{M}		conjunction	1054 Jun 29 j 15:19	12° \mathbb{S} 32'48	0°59'39
	1049 Jul 14 j 01:43	0° \mathbb{L}		minimum elong	1054 Jun 29 j 14:08	12° \mathbb{S} 30'54	0°59'38
desc. node	1049 Jul 25 j 23:48	7° \mathbb{L} 22'47		max. Earth dist.	1054 Jul 10 j 14:07	19° \mathbb{S} 36'18	2.65280 AU
	1049 Aug 29 j 09:06	0° \mathbb{M}			1054 Jul 26 j 19:31	0° \mathbb{Q}	
	1049 Oct 10 j 12:10	0° \mathbb{J}		morning rise	1054 Aug 15 j 07:13	12° \mathbb{Q} 24'48	
	1049 Nov 19 j 02:54	0° \mathbb{Z}			1054 Sep 12 j 01:30	0° \mathbb{M}	
	1049 Dec 27 j 09:42	0° \approx			1054 Oct 29 j 16:50	0° \mathbb{L}	
evening set	1050 Jan 09 j 21:08	10° \approx 39'10			1054 Dec 16 j 21:23	0° \mathbb{M}	
	1050 Feb 03 j 09:56	0° \mathbb{H}			1055 Feb 04 j 19:14	0° \mathbb{J}	
	1050 Mar 14 j 02:28	0° \mathbb{Y}		desc. node	1055 Mar 17 j 21:32	22° \mathbb{J} 29'36	
					1055 Apr 02 j 15:33	0° \mathbb{Z}	
conjunction	1050 Mar 18 j 11:59	3° \mathbb{Y} 20'55	0°-40'-57	retrograde	1055 May 26 j 06:45	14° \mathbb{Z} 07'48	
minimum elong	1050 Mar 18 j 14:55	3° \mathbb{Y} 26'28	0°40'57	opposition	1055 Jun 26 j 01:24	8° \mathbb{Z} 54'21	-5°-32'-50
	1050 Apr 23 j 06:06	0° \mathbb{B}		greatest brilliancy	1055 Jun 27 j 07:55	8° \mathbb{Z} 32'48	-2.7m
max. Earth dist.	1050 May 06 j 23:56	9° \mathbb{B} 56'56	2.45218 AU	min. Earth dist.	1055 Jul 01 j 03:41	7° \mathbb{Z} 28'20	0.39294 AU
morning rise	1050 May 21 j 17:02	20° \mathbb{B} 24'42		direct	1055 Jul 28 j 07:37	3° \mathbb{Z} 02'26	
asc. node	1050 May 25 j 07:55	22° \mathbb{B} 57'27			1055 Oct 08 j 21:05	0° \approx	
	1050 Jun 04 j 10:27	0° \mathbb{II}			1055 Nov 24 j 06:22	0° \mathbb{H}	
	1050 Jul 18 j 23:34	0° \mathbb{S}			1056 Jan 07 j 01:05	0° \mathbb{Y}	
	1050 Sep 04 j 05:39	0° \mathbb{Q}		asc. node	1056 Jan 15 j 04:14	5° \mathbb{Y} 34'47	

	1056 Feb 20 j 01:30	0°♄		behind sun end	1060 Oct 21 j 11:52	4°♍06'00	
	1056 Apr 05 j 04:21	0°♂		desc. node	1060 Nov 06 j 18:28	15°♍37'16	
	1056 May 21 j 11:42	0°♄			1060 Nov 26 j 16:10	0°♄	
evening set	1056 Jun 20 j 02:17	18°♄54'16		morning rise	1060 Dec 10 j 18:46	10°♄22'39	
	1056 Jul 07 j 13:10	0°♂			1061 Jan 05 j 22:57	0°♄	
max. Earth dist.	1056 Aug 02 j 05:38	16°♂19'47	2.67526 AU		1061 Feb 14 j 01:28	0°♄	
					1061 Mar 24 j 17:32	0°♄	
conjunction	1056 Aug 05 j 13:53	18°♂27'30	1°08'56		1061 May 02 j 21:08	0°♄	
minimum elong	1056 Aug 05 j 14:07	18°♂27'51	1°08'55		1061 Jun 12 j 15:40	0°♄	
	1056 Aug 23 j 16:01	0°♄			1061 Jul 26 j 19:39	0°♂	
morning rise	1056 Sep 19 j 01:22	16°♄56'33		asc. node	1061 Sep 06 j 01:38	24°♂10'47	
	1056 Oct 09 j 05:17	0°♄			1061 Sep 17 j 19:12	0°♄	
	1056 Nov 23 j 20:37	0°♍		retrograde	1061 Nov 10 j 03:55	14°♄39'04	
	1057 Jan 07 j 13:32	0°♄		min. Earth dist.	1061 Dec 16 j 05:38	6°♄15'14	0.63419 AU
desc. node	1057 Feb 01 j 20:25	17°♄11'59		greatest brilliancy	1061 Dec 19 j 09:27	4°♄59'17	-1.4m
	1057 Feb 20 j 13:26	0°♄		opposition	1061 Dec 20 j 03:38	4°♄41'04	3°44'40
	1057 Apr 05 j 10:14	0°♄			1062 Jan 01 j 17:07	30°♄	
	1057 May 21 j 02:38	0°♄		direct	1062 Jan 27 j 18:06	25°♂35'16	
	1057 Jul 21 j 10:52	0°♄			1062 Feb 25 j 12:24	0°♄	
retrograde	1057 Aug 11 j 03:12	2°♄54'51			1062 May 05 j 07:46	0°♂	
	1057 Aug 31 j 20:33	30°♄			1062 Jun 26 j 19:23	0°♄	
min. Earth dist.	1057 Sep 06 j 17:04	28°♄20'26	0.40480 AU		1062 Aug 13 j 11:37	0°♄	
greatest brilliancy	1057 Sep 12 j 05:09	26°♄39'29	-2.7m	desc. node	1062 Sep 24 j 17:05	28°♄30'41	
opposition	1057 Sep 13 j 13:35	26°♄14'34	-4°-36'-36		1062 Sep 26 j 20:18	0°♄	
direct	1057 Oct 14 j 01:41	20°♄38'38		evening set	1062 Oct 16 j 21:58	14°♄13'35	
	1057 Nov 24 j 07:37	0°♄		max. Earth dist.	1062 Nov 01 j 20:40	25°♄48'25	2.43710 AU
asc. node	1057 Dec 02 j 04:31	3°♄18'46			1062 Nov 07 j 13:17	0°♄	
	1058 Jan 22 j 05:12	0°♄					
	1058 Mar 13 j 14:15	0°♂		conjunction	1062 Dec 11 j 07:08	25°♄24'27	0°-45'-6
	1058 May 01 j 12:51	0°♄		minimum elong	1062 Dec 11 j 04:53	25°♄20'09	0°45'07
	1058 Jun 18 j 22:18	0°♂			1062 Dec 17 j 06:44	0°♄	
evening set	1058 Jul 27 j 15:33	24°♂21'42			1063 Jan 24 j 19:12	0°♄	
	1058 Aug 05 j 12:04	0°♄		morning rise	1063 Feb 13 j 09:13	15°♄24'16	
max. Earth dist.	1058 Aug 25 j 18:44	13°♄01'48	2.64354 AU		1063 Mar 03 j 23:05	0°♄	
					1063 Apr 11 j 15:42	0°♄	
conjunction	1058 Sep 11 j 07:51	23°♄48'00	0°51'45		1063 May 21 j 18:12	0°♄	
minimum elong	1058 Sep 11 j 09:01	23°♄49'54	0°51'44		1063 Jul 03 j 04:12	0°♂	
	1058 Sep 20 j 18:08	0°♄		asc. node	1063 Jul 25 j 01:37	14°♂38'49	
morning rise	1058 Oct 26 j 19:37	24°♄10'15			1063 Aug 18 j 04:13	0°♄	
	1058 Nov 04 j 08:20	0°♍			1063 Oct 10 j 14:55	0°♂	
	1058 Dec 17 j 05:41	0°♄		retrograde	1063 Dec 14 j 22:02	19°♂17'43	
desc. node	1058 Dec 20 j 19:30	2°♄33'10		opposition	1064 Jan 23 j 23:31	9°♂35'14	4°33'41
	1059 Jan 27 j 15:14	0°♄		greatest brilliancy	1064 Jan 23 j 21:48	9°♂36'56	-1.2m
	1059 Mar 08 j 23:01	0°♄		min. Earth dist.	1064 Jan 23 j 21:58	9°♂36'46	0.67647 AU
	1059 Apr 17 j 21:46	0°♄			1064 Feb 27 j 21:15	30°♄	
	1059 May 28 j 17:04	0°♄		direct	1064 Mar 04 j 15:54	29°♄47'28	
	1059 Jul 11 j 22:22	0°♄			1064 Mar 10 j 14:17	0°♂	
	1059 Sep 11 j 21:37	0°♂			1064 Jun 01 j 12:13	0°♄	
retrograde	1059 Oct 02 j 22:39	2°♂56'22			1064 Jul 22 j 20:26	0°♄	
asc. node	1059 Oct 20 j 03:11	0°♂45'52		desc. node	1064 Aug 11 j 16:24	12°♄45'06	
	1059 Oct 23 j 00:20	30°♄			1064 Sep 06 j 06:07	0°♄	
min. Earth dist.	1059 Nov 02 j 23:04	26°♄20'18	0.53155 AU		1064 Oct 18 j 02:58	0°♄	
opposition	1059 Nov 10 j 06:39	23°♄32'48	1°01'37		1064 Nov 26 j 16:21	0°♄	
greatest brilliancy	1059 Nov 09 j 19:39	23°♄43'18	-1.9m	evening set	1064 Dec 13 j 08:12	12°♄58'48	
direct	1059 Dec 15 j 10:04	15°♄45'01			1065 Jan 03 j 23:05	0°♄	
	1060 Feb 08 j 05:53	0°♂			1065 Feb 10 j 22:50	0°♄	
	1060 Apr 07 j 06:43	0°♄					
	1060 May 29 j 00:13	0°♂		conjunction	1065 Feb 18 j 04:19	5°♄40'23	0°-59'-36
	1060 Jul 16 j 21:17	0°♄		minimum elong	1065 Feb 18 j 06:46	5°♄45'09	0°59'36
	1060 Sep 01 j 10:02	0°♄			1065 Mar 21 j 13:52	0°♄	
evening set	1060 Sep 02 j 18:31	0°♄53'47		max. Earth dist.	1065 Apr 08 j 09:52	13°♄31'05	2.39942 AU
max. Earth dist.	1060 Sep 21 j 09:52	13°♄22'29	2.56024 AU	morning rise	1065 Apr 28 j 00:47	28°♄05'16	
	1060 Oct 15 j 15:02	0°♍			1065 Apr 30 j 15:25	0°♄	
				asc. node	1065 Jun 10 j 23:55	29°♄28'00	
conjunction	1060 Oct 20 j 19:09	3°♄36'42	0°10'18		1065 Jun 11 j 18:23	0°♂	
minimum elong	1060 Oct 20 j 19:35	3°♄37'28	0°10'18		1065 Jul 26 j 10:38	0°♄	
behind sun begin	1060 Oct 20 j 03:17	3°♄08'57			1065 Sep 12 j 09:27	0°♂	

	1065 Nov 05 j 13:23	0°♈			1071 Feb 28 j 15:33	0°♈	
retrograde	1066 Jan 18 j 10:11	22°♈43'23			1071 Apr 13 j 21:17	0°♈	
opposition	1066 Feb 26 j 11:01	13°♈40'24	3°59'58		1071 May 29 j 14:57	0°♈	
greatest brilliancy	1066 Feb 27 j 03:36	13°♈24'09	-1.3m	evening set	1071 Jun 05 j 14:32	4°♈30'47	
min. Earth dist.	1066 Mar 02 j 06:08	12°♈11'11	0.65284 AU		1071 Jul 15 j 09:05	0°♈	
direct	1066 Apr 08 j 20:03	3°♈38'28					
	1066 Jun 26 j 19:06	0°♈		conjunction	1071 Jul 23 j 05:15	4°♈59'47	1°08'35
desc. node	1066 Jun 29 j 15:33	1°♈33'23		minimum elong	1071 Jul 23 j 04:55	4°♈59'15	1°08'35
	1066 Aug 15 j 07:19	0°♈		max. Earth dist.	1071 Jul 25 j 07:40	6°♈20'05	2.67290 AU
	1066 Sep 27 j 09:06	0°♈			1071 Aug 31 j 11:26	0°♈	
	1066 Nov 06 j 07:48	0°♈		morning rise	1071 Sep 06 j 04:40	3°♈38'48	
	1066 Dec 14 j 18:18	0°♈			1071 Oct 17 j 08:06	0°♈	
	1067 Jan 21 j 21:44	0°♈			1071 Dec 02 j 16:55	0°♈	
evening set	1067 Feb 22 j 10:32	24°♈25'04			1072 Jan 17 j 17:25	0°♈	
	1067 Mar 01 j 18:19	0°♈		desc. node	1072 Feb 19 j 12:23	21°♈20'01	
	1067 Apr 11 j 02:51	0°♈			1072 Mar 03 j 22:55	0°♈	
conjunction	1067 Apr 26 j 05:15	10°♈52'24	0°-1'-43		1072 Apr 21 j 03:54	0°♈	
minimum elong	1067 Apr 26 j 05:19	10°♈52'30	0°01'44	retrograde	1072 Jun 24 j 23:45	0°♈	
behind sun begin	1067 Apr 25 j 04:33	10°♈08'21			1072 Jul 14 j 11:19	2°♈27'29	
behind sun end	1067 Apr 27 j 06:04	11°♈36'37		min. Earth dist.	1072 Aug 03 j 04:02	30°♈	
asc. node	1067 Apr 28 j 22:15	12°♈48'09		opposition	1072 Aug 11 j 10:47	27°♈53'45	0.37664 AU
	1067 May 23 j 11:02	0°♈		greatest brilliancy	1072 Aug 14 j 09:08	27°♈05'49	-6°-35'-56
max. Earth dist.	1067 Jun 02 j 12:41	6°♈54'59	2.53223 AU	direct	1072 Aug 13 j 16:41	27°♈17'03	-2.9m
morning rise	1067 Jun 21 j 18:14	19°♈54'53			1072 Sep 12 j 23:15	22°♈08'51	
	1067 Jul 06 j 23:04	0°♈			1072 Oct 19 j 14:15	0°♈	
	1067 Aug 22 j 14:02	0°♈		asc. node	1072 Dec 16 j 14:47	0°♈	
	1067 Oct 10 j 13:26	0°♈			1072 Dec 18 j 19:46	1°♈19'04	
	1067 Dec 02 j 19:12	0°♈			1073 Feb 03 j 04:51	0°♈	
retrograde	1068 Feb 29 j 02:42	29°♈48'35			1073 Mar 22 j 15:17	0°♈	
opposition	1068 Apr 05 j 19:42	21°♈52'36	1°47'49		1073 May 09 j 05:51	0°♈	
greatest brilliancy	1068 Apr 06 j 13:39	21°♈35'57	-1.7m	evening set	1073 Jun 25 j 23:35	0°♈	
min. Earth dist.	1068 Apr 13 j 03:02	19°♈10'21	0.56507 AU		1073 Jul 13 j 05:43	10°♈53'13	
direct	1068 May 15 j 23:50	12°♈21'00		max. Earth dist.	1073 Aug 12 j 07:23	0°♈	
desc. node	1068 May 16 j 13:59	12°♈21'08			1073 Aug 16 j 09:34	2°♈37'10	2.66218 AU
	1068 Jul 13 j 21:13	0°♈		conjunction	1073 Aug 27 j 21:29	10°♈00'28	1°01'24
	1068 Sep 01 j 12:06	0°♈		minimum elong	1073 Aug 27 j 22:25	10°♈01'58	1°01'24
	1068 Oct 13 j 11:31	0°♈			1073 Sep 27 j 14:47	0°♈	
	1068 Nov 21 j 22:17	0°♈		morning rise	1073 Oct 11 j 14:00	9°♈13'33	
	1068 Dec 30 j 19:44	0°♈			1073 Nov 11 j 12:40	0°♈	
	1069 Feb 08 j 09:28	0°♈			1073 Dec 24 j 23:28	0°♈	
asc. node	1069 Mar 15 j 22:14	26°♈02'04		desc. node	1074 Jan 06 j 10:53	8°♈47'40	
	1069 Mar 21 j 11:00	0°♈			1074 Feb 05 j 02:52	0°♈	
evening set	1069 Apr 21 j 11:57	21°♈48'40			1074 Mar 18 j 08:02	0°♈	
	1069 May 03 j 10:03	0°♈			1074 Apr 28 j 09:21	0°♈	
conjunction	1069 Jun 13 j 11:38	27°♈30'26	0°48'19		1074 Jun 10 j 01:33	0°♈	
minimum elong	1069 Jun 13 j 10:07	27°♈27'56	0°48'19	retrograde	1074 Jul 30 j 12:43	0°♈	
	1069 Jun 17 j 06:39	0°♈		min. Earth dist.	1074 Sep 14 j 19:09	12°♈46'22	
max. Earth dist.	1069 Jun 30 j 21:34	8°♈53'55	2.62892 AU	opposition	1074 Oct 13 j 14:42	7°♈02'02	0.47995 AU
morning rise	1069 Jul 31 j 23:10	28°♈54'38		greatest brilliancy	1074 Oct 21 j 16:49	4°♈07'08	0°-48'-47
	1069 Aug 02 j 16:08	0°♈			1074 Oct 21 j 07:55	4°♈15'11	-2.2m
	1069 Sep 19 j 03:44	0°♈		asc. node	1074 Nov 03 j 08:01	30°♈	
	1069 Nov 06 j 14:21	0°♈		direct	1074 Nov 05 j 19:14	29°♈21'48	
	1069 Dec 26 j 19:14	0°♈			1074 Nov 24 j 03:13	27°♈05'15	
	1070 Feb 20 j 18:34	0°♈			1074 Dec 16 j 06:25	0°♈	
desc. node	1070 Apr 03 j 12:59	15°♈44'45			1075 Feb 23 j 18:10	0°♈	
retrograde	1070 Apr 26 j 16:10	18°♈44'43			1075 Apr 17 j 16:49	0°♈	
opposition	1070 May 29 j 04:59	12°♈43'09	-3°-6'-14		1075 Jun 06 j 17:13	0°♈	
greatest brilliancy	1070 May 30 j 10:57	12°♈19'39	-2.5m	evening set	1075 Jul 24 j 22:59	0°♈	
min. Earth dist.	1070 Jun 06 j 02:31	10°♈15'04	0.43535 AU		1075 Aug 19 j 13:37	16°♈24'39	
direct	1070 Jul 03 j 14:27	5°♈27'50		max. Earth dist.	1075 Sep 09 j 07:45	0°♈	
	1070 Sep 09 j 17:05	0°♈			1075 Sep 10 j 20:54	1°♈01'31	2.59856 AU
	1070 Oct 25 j 08:19	0°♈		conjunction	1075 Oct 05 j 05:35	17°♈22'15	0°29'02
	1070 Dec 06 j 06:31	0°♈		minimum elong	1075 Oct 05 j 06:35	17°♈23'57	0°29'00
	1071 Jan 16 j 22:34	0°♈			1075 Oct 23 j 15:10	0°♈	
asc. node	1071 Jan 31 j 21:14	10°♈36'25		morning rise	1075 Nov 22 j 08:16	20°♈55'32	

desc. node	1075 Nov 24 j 10:31	22°♄25'28			1081 Feb 13 j 22:54	30°♄♂	
	1075 Dec 04 j 22:48	0°♂		min. Earth dist.	1081 Feb 15 j 02:57	29°♂32'15	0.66991 AU
	1076 Jan 14 j 14:05	0°♂		direct	1081 Mar 26 j 02:52	20°♂26'48	
	1076 Feb 23 j 01:35	0°♂			1081 May 09 j 01:02	0°♄	
	1076 Apr 02 j 02:14	0°♂			1081 Jul 07 j 19:55	0°♂	
	1076 May 11 j 15:11	0°♄		desc. node	1081 Jul 16 j 06:42	5°♂03'29	
	1076 Jun 22 j 02:00	0°♂			1081 Aug 24 j 00:52	0°♄	
	1076 Aug 07 j 05:38	0°♂			1081 Oct 05 j 11:16	0°♂	
asc. node	1076 Sep 22 j 18:02	23°♂02'17			1081 Nov 14 j 04:37	0°♂	
retrograde	1076 Oct 26 j 19:11	29°♂53'11			1081 Dec 22 j 12:36	0°♂	
min. Earth dist.	1076 Nov 30 j 00:39	22°♂07'29	0.60049 AU	greatest brilliancy	1082 Jan 02 j 16:30	8°♂48'57	1.2m
opposition	1076 Dec 05 j 09:27	19°♂59'41	2°58'31	evening set	1082 Jan 25 j 20:06	27°♂04'12	
greatest brilliancy	1076 Dec 04 j 13:01	20°♂19'58	-1.6m		1082 Jan 29 j 13:38	0°♂	
direct	1077 Jan 11 j 19:34	11°♂19'04			1082 Mar 09 j 06:54	0°♄	
	1077 Mar 18 j 12:58	0°♂					
	1077 May 14 j 23:52	0°♂		conjunction	1082 Apr 02 j 07:53	18°♄06'28	0°-27'-4
	1077 Jul 04 j 14:36	0°♄		minimum elong	1082 Apr 02 j 09:55	18°♄10'15	0°27'04
	1077 Aug 20 j 17:17	0°♂			1082 Apr 18 j 11:24	0°♂	
evening set	1077 Sep 28 j 12:11	26°♂11'47		asc. node	1082 May 15 j 15:31	19°♂30'01	
	1077 Oct 03 j 23:24	0°♄		max. Earth dist.	1082 May 18 j 01:48	21°♂12'40	2.48182 AU
desc. node	1077 Oct 11 j 09:49	5°♄13'01			1082 May 30 j 15:52	0°♂	
max. Earth dist.	1077 Oct 13 j 09:08	6°♄36'33	2.48829 AU	morning rise	1082 Jun 02 j 15:57	2°♂04'40	
	1077 Nov 14 j 18:51	0°♂			1082 Jul 14 j 02:58	0°♂	
					1082 Aug 30 j 01:01	0°♂	
conjunction	1077 Nov 19 j 05:16	3°♂16'22	0°-23'-47		1082 Oct 19 j 05:14	0°♄	
minimum elong	1077 Nov 19 j 04:02	3°♂14'05	0°23'47		1082 Dec 16 j 13:07	0°♂	
	1077 Dec 24 j 16:35	0°♂		retrograde	1083 Feb 11 j 16:52	14°♂45'42	
morning rise	1078 Jan 16 j 07:44	17°♂28'05		opposition	1083 Mar 21 j 12:10	6°♂19'01	2°53'46
	1078 Feb 01 j 09:26	0°♂		greatest brilliancy	1083 Mar 22 j 09:41	5°♂58'29	-1.5m
	1078 Mar 11 j 16:43	0°♂		min. Earth dist.	1083 Mar 27 j 13:03	4°♂00'59	0.60651 AU
	1078 Apr 19 j 11:40	0°♄			1083 Apr 08 j 06:40	30°♄♄	
	1078 May 29 j 17:11	0°♂		direct	1083 May 01 j 10:49	26°♄27'27	
	1078 Jul 11 j 11:46	0°♂			1083 May 26 j 02:34	0°♂	
asc. node	1078 Aug 10 j 16:11	19°♂37'00		desc. node	1083 Jun 03 j 06:04	2°♂29'01	
	1078 Aug 27 j 18:49	0°♂			1083 Jul 29 j 07:43	0°♄	
	1078 Oct 28 j 08:19	0°♂			1083 Sep 12 j 20:04	0°♂	
retrograde	1078 Dec 01 j 14:19	6°♂26'23			1083 Oct 23 j 15:32	0°♂	
	1079 Jan 02 j 01:39	30°♄♄			1083 Dec 01 j 12:44	0°♂	
min. Earth dist.	1079 Jan 09 j 04:29	27°♂12'43	0.66776 AU		1084 Jan 09 j 00:30	0°♂	
opposition	1079 Jan 10 j 18:39	26°♂34'24	4°25'09		1084 Feb 17 j 05:20	0°♄	
greatest brilliancy	1079 Jan 10 j 09:28	26°♂43'37	-1.3m		1084 Mar 28 j 22:24	0°♂	
direct	1079 Feb 19 j 19:39	16°♂59'49		evening set	1084 Mar 31 j 13:52	1°♂54'08	
	1079 Apr 14 j 01:06	0°♂		asc. node	1084 Apr 01 j 13:48	2°♂37'06	
	1079 Jun 12 j 12:38	0°♄			1084 May 10 j 14:02	0°♂	
	1079 Jul 31 j 22:13	0°♂					
desc. node	1079 Aug 29 j 08:05	18°♂42'47		conjunction	1084 May 26 j 21:37	11°♂06'44	0°32'22
	1079 Sep 14 j 19:10	0°♄		minimum elong	1084 May 26 j 20:10	11°♂04'17	0°32'21
	1079 Oct 26 j 13:33	0°♂		max. Earth dist.	1084 Jun 20 j 12:04	27°♂32'23	2.59715 AU
evening set	1079 Nov 19 j 06:14	17°♂47'53			1084 Jun 24 j 05:39	0°♂	
	1079 Dec 05 j 03:50	0°♂		morning rise	1084 Jul 16 j 20:55	14°♂45'59	
max. Earth dist.	1080 Jan 09 j 15:28	27°♂44'42	2.37230 AU		1084 Aug 09 j 14:58	0°♂	
	1080 Jan 12 j 12:06	0°♂			1084 Sep 26 j 11:44	0°♄	
					1084 Nov 15 j 02:56	0°♂	
conjunction	1080 Jan 21 j 01:44	6°♂45'52	-1°-4'-43		1085 Jan 07 j 20:58	0°♄	
minimum elong	1080 Jan 21 j 01:12	6°♂44'48	1°04'44	retrograde	1085 Apr 01 j 07:48	27°♄35'38	
	1080 Feb 19 j 12:34	0°♂		desc. node	1085 Apr 20 j 04:28	25°♄22'59	
	1080 Mar 29 j 02:56	0°♄		opposition	1085 May 05 j 19:21	20°♄42'40	0°-48'-38
morning rise	1080 Mar 31 j 11:29	1°♄48'08		greatest brilliancy	1085 May 06 j 05:03	20°♄34'22	-2.2m
	1080 May 08 j 03:09	0°♂		min. Earth dist.	1085 May 14 j 07:26	17°♄48'44	0.48737 AU
	1080 Jun 19 j 06:09	0°♂		direct	1085 Jun 12 j 16:02	12°♄16'05	
asc. node	1080 Jun 27 j 16:07	5°♂46'50			1085 Aug 08 j 16:00	0°♂	
	1080 Aug 03 j 04:46	0°♂			1085 Sep 25 j 15:41	0°♂	
	1080 Sep 21 j 07:28	0°♂			1085 Nov 06 j 05:07	0°♂	
	1080 Nov 20 j 17:58	0°♄			1085 Dec 16 j 08:28	0°♂	
retrograde	1081 Jan 04 j 06:08	9°♄47'49			1086 Jan 25 j 20:57	0°♄	
opposition	1081 Feb 12 j 19:53	0°♄26'44	4°22'47	asc. node	1086 Feb 17 j 13:04	16°♄23'41	
greatest brilliancy	1081 Feb 13 j 05:58	0°♄16'45	-1.2m		1086 Mar 08 j 17:31	0°♂	

	1086 Apr 21 j 08:04	0°♊			1091 Mar 03 j 11:21	0°♊		
evening set	1086 May 20 j 04:35	19°♊13'22			1091 Apr 12 j 00:29	0°♋		
	1086 Jun 05 j 15:23	0°♌			1091 May 22 j 04:50	0°♍		
					1091 Jul 03 j 22:47	0°♎		
conjunction	1086 Jul 08 j 09:49	21°♌10'44	1°04'10		1091 Aug 24 j 04:34	0°♏		
minimum elong	1086 Jul 08 j 08:55	21°♌09'17	1°04'10	asc. node	1091 Oct 10 j 09:30	13°♏34'35		
max. Earth dist.	1086 Jul 16 j 01:36	26°♌05'12	2.66228 AU	retrograde	1091 Oct 12 j 09:28	13°♏36'18		
	1086 Jul 22 j 04:29	0°♍		min. Earth dist.	1091 Nov 13 j 14:11	6°♏34'13	0.55795 AU	
morning rise	1086 Aug 23 j 07:55	20°♍27'54		opposition	1091 Nov 20 j 07:12	3°♏57'43	1°51'53	
	1086 Sep 07 j 08:27	0°♎		greatest brilliancy	1091 Nov 19 j 13:59	4°♏14'27	-1.8m	
	1086 Oct 24 j 15:45	0°♏			1091 Dec 01 j 06:05	30°♏		
	1086 Dec 11 j 01:10	0°♐		direct	1091 Dec 26 j 07:25	25°♏48'58		
	1087 Jan 28 j 03:02	0°♑			1092 Jan 22 j 18:59	0°♐		
desc. node	1087 Mar 08 j 03:50	23°♑20'43			1092 Mar 31 j 08:49	0°♑		
	1087 Mar 19 j 21:43	0°♒			1092 May 23 j 14:40	0°♒		
	1087 May 31 j 14:05	0°♓			1092 Jul 12 j 00:53	0°♓		
retrograde	1087 Jun 13 j 13:33	1°♓02'10			1092 Aug 27 j 18:32	0°♑		
	1087 Jun 26 j 11:51	30°♒		evening set	1092 Sep 11 j 19:25	10°♑00'58		
opposition	1087 Jul 13 j 18:02	26°♒03'24	-6°-33'-2	max. Earth dist.	1092 Sep 28 j 17:08	21°♑29'50	2.53613 AU	
greatest brilliancy	1087 Jul 14 j 11:34	25°♒51'41	-2.8m		1092 Oct 11 j 00:09	0°♒		
min. Earth dist.	1087 Jul 16 j 05:48	25°♒23'32	0.37871 AU	desc. node	1092 Oct 28 j 01:15	12°♒00'08		
direct	1087 Aug 13 j 08:24	20°♒48'55						
	1087 Sep 21 j 13:44	0°♓		conjunction	1092 Oct 30 j 21:18	14°♒01'23	0°-1'-46	
	1087 Nov 15 j 02:21	0°♋		minimum elong	1092 Oct 30 j 21:15	14°♒01'17	0°01'47	
	1087 Dec 31 j 02:52	0°♌		behind sun begin	1092 Oct 29 j 23:58	13°♒23'21		
asc. node	1088 Jan 05 j 12:16	3°♌35'15		behind sun end	1092 Oct 31 j 18:32	14°♒39'16		
	1088 Feb 14 j 05:30	0°♍			1092 Nov 21 j 23:35	0°♑		
	1088 Mar 30 j 23:25	0°♎		morning rise	1092 Dec 23 j 00:00	23°♑04'31		
	1088 May 16 j 15:42	0°♏			1093 Jan 01 j 03:16	0°♒		
evening set	1088 Jun 28 j 14:54	27°♏16'54			1093 Feb 09 j 02:17	0°♓		
	1088 Jul 02 j 21:52	0°♑			1093 Mar 19 j 14:57	0°♋		
max. Earth dist.	1088 Aug 07 j 10:58	22°♑34'25	2.67299 AU		1093 Apr 27 j 14:31	0°♌		
					1093 Jun 07 j 02:20	0°♍		
conjunction	1088 Aug 13 j 16:17	26°♑32'30	1°07'16		1093 Jul 20 j 13:07	0°♎		
minimum elong	1088 Aug 13 j 16:48	26°♑33'19	1°07'17	asc. node	1093 Aug 27 j 09:36	23°♏22'04		
	1088 Aug 19 j 02:09	0°♏			1093 Sep 08 j 09:43	0°♑		
morning rise	1088 Sep 27 j 02:13	25°♏08'34		retrograde	1093 Nov 18 j 02:07	23°♏04'44		
	1088 Oct 04 j 13:08	0°♑		min. Earth dist.	1093 Dec 25 j 02:11	14°♏22'28	0.64874 AU	
	1088 Nov 18 j 21:43	0°♒		opposition	1093 Dec 28 j 04:54	13°♏07'31	4°03'51	
	1089 Jan 02 j 02:28	0°♓		greatest brilliancy	1093 Dec 27 j 13:17	13°♏23'11	-1.4m	
desc. node	1089 Jan 23 j 03:54	14°♓33'11		direct	1094 Feb 05 j 09:19	3°♏50'19		
	1089 Feb 14 j 07:04	0°♑			1094 Apr 28 j 01:45	0°♒		
	1089 Mar 28 j 21:56	0°♓			1094 Jun 21 j 08:27	0°♓		
	1089 May 11 j 02:33	0°♋			1094 Aug 08 j 13:55	0°♑		
	1089 Jun 28 j 00:42	0°♌		desc. node	1094 Sep 15 j 00:06	25°♑03'35		
retrograde	1089 Aug 24 j 19:48	18°♌53'02			1094 Sep 22 j 03:02	0°♒		
min. Earth dist.	1089 Sep 20 j 18:48	13°♌58'36	0.42919 AU	evening set	1094 Oct 28 j 05:45	25°♒51'10		
greatest brilliancy	1089 Sep 27 j 11:15	11°♌47'27	-2.5m		1094 Nov 02 j 20:53	0°♑		
opposition	1089 Sep 28 j 15:21	11°♌24'18	-3°-9'-35	max. Earth dist.	1094 Nov 16 j 11:44	10°♑09'08	2.40944 AU	
direct	1089 Oct 30 j 05:26	5°♌17'04			1094 Dec 12 j 13:17	0°♒		
asc. node	1089 Nov 22 j 10:31	8°♌32'41						
	1090 Jan 12 j 18:09	0°♍		conjunction	1094 Dec 25 j 02:39	9°♒43'27	0°-55'-7	
	1090 Mar 07 j 04:22	0°♎		minimum elong	1094 Dec 25 j 00:21	9°♒39'00	0°55'08	
	1090 Apr 26 j 04:59	0°♏			1095 Jan 20 j 00:03	0°♓		
	1090 Jun 14 j 02:10	0°♑			1095 Feb 27 j 02:21	0°♋		
	1090 Jul 31 j 21:10	0°♒		morning rise	1095 Mar 02 j 08:25	2°♋33'06		
evening set	1090 Aug 04 j 21:55	2°♒34'16			1095 Apr 06 j 17:28	0°♌		
max. Earth dist.	1090 Aug 31 j 11:01	19°♒41'24	2.62984 AU		1095 May 16 j 18:02	0°♍		
	1090 Sep 16 j 04:16	0°♑			1095 Jun 27 j 23:48	0°♎		
				asc. node	1095 Jul 15 j 08:28	11°♏45'42		
conjunction	1090 Sep 19 j 18:54	2°♑23'15	0°44'26		1095 Aug 12 j 10:41	0°♏		
minimum elong	1090 Sep 19 j 20:06	2°♑25'14	0°44'26		1095 Oct 02 j 15:29	0°♑		
	1090 Oct 30 j 16:16	0°♒		retrograde	1095 Dec 22 j 14:46	27°♒03'56		
morning rise	1090 Nov 04 j 23:37	3°♒39'44		opposition	1096 Jan 31 j 13:18	17°♒28'12	4°33'05	
desc. node	1090 Dec 11 j 02:36	29°♒05'45		greatest brilliancy	1096 Jan 31 j 15:49	17°♒25'41	-1.2m	
	1090 Dec 12 j 08:53	0°♓		min. Earth dist.	1096 Feb 01 j 07:39	17°♒09'54	0.67693 AU	
	1091 Jan 22 j 11:39	0°♑		direct	1096 Mar 12 j 12:39	7°♒35'07		

	1096 May 24 j 20:34	0°♏	
	1096 Jul 17 j 05:03	0°♌	
desc. node	1096 Aug 01 j 22:45	9°♌54'31	
	1096 Sep 01 j 04:12	0°♍	
	1096 Oct 13 j 05:59	0°♏	
	1096 Nov 21 j 20:56	0°♐	
evening set	1096 Dec 28 j 14:17	28°♐45'37	
	1096 Dec 30 j 03:58	0°♑	
	1097 Feb 06 j 03:44	0°♒	
conjunction	1097 Mar 06 j 08:49	21°♒59'52	0°-50'-15
minimum elong	1097 Mar 06 j 11:56	22°♒05'54	0°50'14
	1097 Mar 16 j 18:42	0°♓	
	1097 Apr 25 j 20:08	0°♈	
max. Earth dist.	1097 Apr 26 j 15:33	0°♈35'30	2.42792 AU
morning rise	1097 May 11 j 20:46	11°♈36'42	
asc. node	1097 Jun 01 j 07:02	26°♈04'30	
	1097 Jun 06 j 22:20	0°♉	
	1097 Jul 21 j 10:51	0°♊	
	1097 Sep 06 j 21:20	0°♋	
	1097 Oct 29 j 01:33	0°♌	
	1098 Jan 14 j 22:18	0°♌	
retrograde	1098 Jan 26 j 22:29	0°♌50'22	
	1098 Feb 07 j 09:29	30°♍	
opposition	1098 Mar 06 j 14:16	21°♍59'01	3°40'09
greatest brilliancy	1098 Mar 07 j 09:30	21°♍40'20	-1.4m
min. Earth dist.	1098 Mar 11 j 04:53	20°♍11'37	0.63888 AU
direct	1098 Apr 16 j 21:45	11°♍58'50	
	1098 Jun 18 j 00:33	0°♎	
desc. node	1098 Jun 19 j 21:28	0°♎55'19	
	1098 Aug 09 j 04:04	0°♏	
	1098 Sep 21 j 22:18	0°♏	
	1098 Nov 01 j 03:24	0°♐	
	1098 Dec 09 j 17:12	0°♑	
	1099 Jan 16 j 23:05	0°♒	
	1099 Feb 24 j 21:46	0°♓	
evening set	1099 Mar 08 j 23:31	9°♓05'45	
	1099 Apr 06 j 08:11	0°♈	
asc. node	1099 Apr 19 j 06:33	9°♈18'26	
conjunction	1099 May 08 j 08:33	22°♈47'16	0°11'50
minimum elong	1099 May 08 j 07:50	22°♈46'02	0°11'49
behind sun begin	1099 May 07 j 15:44	22°♈17'54	
behind sun end	1099 May 08 j 23:57	23°♈14'08	
	1099 May 18 j 17:48	0°♉	
max. Earth dist.	1099 Jun 10 j 00:00	15°♉10'50	2.55728 AU
morning rise	1099 Jul 01 j 15:34	29°♉36'44	
	1099 Jul 02 j 05:41	0°♊	
	1099 Aug 17 j 17:05	0°♋	
	1099 Oct 05 j 04:05	0°♌	
	1099 Nov 25 j 16:33	0°♌	
	1100 Jan 26 j 17:31	0°♍	
retrograde	1100 Mar 10 j 22:01	9°♍32'18	
opposition	1100 Apr 15 j 22:33	1°♍56'19	0°58'55
greatest brilliancy	1100 Apr 16 j 10:02	1°♍45'54	-1.9m
	1100 Apr 21 j 06:32	30°♎	
min. Earth dist.	1100 Apr 23 j 20:24	29°♎04'43	0.53869 AU
desc. node	1100 May 06 j 21:13	25°♎03'33	
direct	1100 May 25 j 11:20	22°♎42'17	
	1100 Jun 29 j 18:35	0°♏	
	1100 Aug 24 j 23:18	0°♏	
	1100 Oct 07 j 04:48	0°♐	
	1100 Nov 16 j 04:03	0°♑	
	1100 Dec 25 j 09:23	0°♒	

conjunction	1101 Jun 22 j 20:30	6° $\overline{5}$ 41'44	0°55'26		1106 Jun 02 j 02:54	0° Υ	
minimum elong	1101 Jun 22 j 19:08	6° $\overline{5}$ 39'31	0°55'25		1106 Jul 17 j 23:07	0° $\overline{8}$	
max. Earth dist.	1101 Jul 06 j 14:00	15° $\overline{5}$ 35'48	2.64319 AU	retrograde	1106 Sep 25 j 09:16	25° $\overline{8}$ 03'03	
	1101 Jul 29 j 00:15	0° Ω		min. Earth dist.	1106 Oct 25 j 10:29	18° $\overline{8}$ 49'44	0.50881 AU
morning rise	1101 Aug 09 j 05:51	7° Ω 09'44		asc. node	1106 Oct 27 j 02:30	18° $\overline{8}$ 12'54	
	1101 Sep 14 j 08:04	0° $\overline{\eta}$		opposition	1106 Nov 02 j 04:19	15° $\overline{8}$ 56'07	0°18'35
	1101 Nov 01 j 06:45	0° \underline{A}		greatest brilliancy	1106 Nov 07 j 15:11	13° $\overline{8}$ 57'17	-2.1m
	1101 Dec 20 j 05:17	0° $\overline{\text{M}}$		direct	1106 Dec 06 j 13:34	8° $\overline{8}$ 27'44	
	1102 Feb 10 j 01:45	0° \overline{x}			1107 Feb 14 j 19:16	0° $\overline{\text{II}}$	
desc. node	1102 Mar 24 j 20:09	21° \overline{x} 02'03			1107 Apr 11 j 15:41	0° $\overline{5}$	
	1102 Apr 20 j 06:39	0° $\overline{5}$			1107 Jun 01 j 14:09	0° Ω	
retrograde	1102 May 12 j 19:00	2° $\overline{5}$ 53'36			1107 Jul 20 j 05:02	0° $\overline{\eta}$	
	1102 Jun 03 j 15:41	30° $\overline{\text{R}}$ \overline{x}		evening set	1107 Aug 28 j 04:22	25° $\overline{\eta}$ 02'52	
opposition	1102 Jun 13 j 06:37	27° \overline{x} 20'13	-4°-31'-17		1107 Sep 04 j 16:59	0° \underline{A}	
greatest brilliancy	1102 Jun 14 j 16:43	26° \overline{x} 54'54	-2.6m	max. Earth dist.	1107 Sep 17 j 08:22	8° \underline{A} 24'34	2.57837 AU
min. Earth dist.	1102 Jun 19 j 22:20	25° \overline{x} 22'14	0.40992 AU				
direct	1102 Jul 16 j 23:18	20° \overline{x} 51'01		conjunction	1107 Oct 14 j 12:10	26° \underline{A} 52'54	0°18'34
	1102 Aug 24 j 10:55	0° $\overline{5}$		minimum elong	1107 Oct 14 j 12:53	26° \underline{A} 54'09	0°18'33
	1102 Oct 16 j 09:09	0° \approx			1107 Oct 19 j 00:14	0° $\overline{\text{M}}$	
	1102 Nov 29 j 05:03	0° $\overline{\text{X}}$		desc. node	1107 Nov 14 j 17:06	18° $\overline{\text{M}}$ 49'01	
	1103 Jan 10 j 20:38	0° Υ			1107 Nov 30 j 05:17	0° \overline{x}	
asc. node	1103 Jan 22 j 03:24	7° Υ 53'17		morning rise	1107 Dec 03 j 01:24	2° \overline{x} 03'58	
	1103 Feb 23 j 04:16	0° $\overline{\text{X}}$			1108 Jan 09 j 16:33	0° $\overline{5}$	
	1103 Apr 08 j 20:01	0° $\overline{\text{II}}$			1108 Feb 17 j 23:11	0° \approx	
	1103 May 24 j 20:08	0° $\overline{5}$			1108 Mar 27 j 18:45	0° $\overline{\text{X}}$	
evening set	1103 Jun 14 j 13:53	13° $\overline{5}$ 18'45			1108 May 06 j 01:18	0° Υ	
	1103 Jul 10 j 17:46	0° Ω			1108 Jun 16 j 00:17	0° $\overline{\text{X}}$	
					1108 Jul 30 j 17:55	0° $\overline{\text{II}}$	
conjunction	1103 Jul 31 j 11:54	13° Ω 12'22	1°09'15	asc. node	1108 Sep 13 j 00:49	24° $\overline{\text{II}}$ 40'24	
minimum elong	1103 Jul 31 j 11:53	13° Ω 12'21	1°09'16		1108 Sep 25 j 06:28	0° $\overline{5}$	
max. Earth dist.	1103 Jul 30 j 13:29	12° Ω 36'43	2.67537 AU	retrograde	1108 Nov 04 j 02:55	8° $\overline{5}$ 56'15	
	1103 Aug 26 j 20:24	0° $\overline{\eta}$		min. Earth dist.	1108 Dec 09 j 09:30	0° $\overline{5}$ 49'11	0.62029 AU
morning rise	1103 Sep 14 j 03:08	11° $\overline{\eta}$ 41'52			1108 Dec 11 j 10:53	30° $\overline{\text{R}}$ $\overline{\text{II}}$	
	1103 Oct 12 j 12:59	0° \underline{A}		opposition	1108 Dec 13 j 23:45	28° $\overline{\text{II}}$ 59'12	3°27'43
	1103 Nov 27 j 12:00	0° $\overline{\text{M}}$		greatest brilliancy	1108 Dec 13 j 03:56	29° $\overline{\text{II}}$ 18'58	-1.5m
	1104 Jan 11 j 17:57	0° \overline{x}		direct	1109 Jan 21 j 02:47	20° $\overline{\text{II}}$ 03'55	
desc. node	1104 Feb 09 j 19:05	19° \overline{x} 25'24			1109 Mar 07 j 08:19	0° $\overline{5}$	
	1104 Feb 25 j 14:11	0° $\overline{5}$			1109 May 08 j 18:50	0° Ω	
	1104 Apr 10 j 21:23	0° \approx			1109 Jun 29 j 10:49	0° $\overline{\eta}$	
	1104 May 30 j 01:39	0° $\overline{\text{X}}$			1109 Aug 15 j 22:13	0° \underline{A}	
retrograde	1104 Jul 30 j 15:00	20° $\overline{\text{X}}$ 23'28			1109 Sep 29 j 07:04	0° $\overline{\text{M}}$	
min. Earth dist.	1104 Aug 26 j 09:58	15° $\overline{\text{X}}$ 56'35	0.38901 AU	desc. node	1109 Oct 01 j 15:31	1° $\overline{\text{M}}$ 38'38	
opposition	1104 Aug 31 j 20:37	14° $\overline{\text{X}}$ 22'10	-5°-37'-54	evening set	1109 Oct 08 j 18:01	6° $\overline{\text{M}}$ 38'29	
greatest brilliancy	1104 Aug 30 j 15:29	14° $\overline{\text{X}}$ 43'16	-2.8m	max. Earth dist.	1109 Oct 23 j 15:13	17° $\overline{\text{M}}$ 16'01	2.46018 AU
direct	1104 Sep 30 j 17:10	9° $\overline{\text{X}}$ 08'05			1109 Nov 10 j 02:22	0° \overline{x}	
	1104 Dec 05 j 08:21	0° Υ					
asc. node	1104 Dec 09 j 03:20	1° Υ 58'28		conjunction	1109 Dec 01 j 08:22	15° \overline{x} 51'01	0°-36'-20
	1105 Jan 27 j 00:03	0° $\overline{\text{X}}$		minimum elong	1109 Dec 01 j 06:29	15° \overline{x} 47'27	0°36'19
	1105 Mar 16 j 20:42	0° $\overline{\text{II}}$			1109 Dec 19 j 22:37	0° $\overline{5}$	
	1105 May 04 j 03:24	0° $\overline{5}$			1110 Jan 27 j 13:24	0° \approx	
	1105 Jun 21 j 05:25	0° Ω		morning rise	1110 Jan 31 j 16:57	3° \approx 15'09	
evening set	1105 Jul 21 j 12:29	19° Ω 04'29		greatest brilliancy	1110 Feb 28 j 23:10	25° \approx 26'37	1.2m
	1105 Aug 07 j 16:54	0° $\overline{\eta}$			1110 Mar 06 j 18:44	0° $\overline{\text{X}}$	
max. Earth dist.	1105 Aug 21 j 19:39	9° $\overline{\eta}$ 03'05	2.65293 AU		1110 Apr 14 j 11:43	0° Υ	
					1110 May 24 j 14:03	0° $\overline{\text{X}}$	
conjunction	1105 Sep 05 j 02:54	18° $\overline{\eta}$ 18'04	0°56'14		1110 Jul 06 j 01:32	0° $\overline{\text{II}}$	
minimum elong	1105 Sep 05 j 03:59	18° $\overline{\eta}$ 19'50	0°56'14	asc. node	1110 Aug 01 j 00:33	17° $\overline{\text{II}}$ 12'40	
	1105 Sep 23 j 00:09	0° \underline{A}			1110 Aug 21 j 09:51	0° $\overline{5}$	
morning rise	1105 Oct 20 j 04:01	18° \underline{A} 04'20			1110 Oct 15 j 22:03	0° Ω	
	1105 Nov 06 j 18:30	0° $\overline{\text{M}}$		retrograde	1110 Dec 09 j 05:45	14° Ω 18'39	
	1105 Dec 19 j 22:18	0° \overline{x}		opposition	1111 Jan 18 j 09:23	4° Ω 31'23	4°31'36
desc. node	1105 Dec 27 j 18:13	5° \overline{x} 33'23		greatest brilliancy	1111 Jan 18 j 04:13	4° Ω 36'34	-1.2m
	1106 Jan 30 j 15:54	0° $\overline{5}$		min. Earth dist.	1111 Jan 17 j 15:08	4° Ω 49'41	0.67384 AU
	1106 Mar 12 j 08:30	0° \approx			1111 Jan 30 j 06:10	30° $\overline{\text{R}}$ $\overline{5}$	
	1106 Apr 21 j 17:18	0° $\overline{\text{X}}$		direct	1111 Feb 27 j 20:04	24° $\overline{5}$ 49'06	

	1111 Mar 31 j 08:53	0°♈			1116 May 05 j 20:13	0°♈	
	1111 Jun 06 j 04:08	0°♍					
	1111 Jul 26 j 16:15	0°♊		conjunction	1116 Jun 06 j 03:29	21°♈07'53	0°42'11
desc. node	1111 Aug 19 j 14:48	15°♊32'58		minimum elong	1116 Jun 06 j 01:56	21°♈05'19	0°42'09
	1111 Sep 09 j 21:41	0°♋			1116 Jun 19 j 13:11	0°♎	
	1111 Oct 21 j 18:38	0°♌		max. Earth dist.	1116 Jun 26 j 18:14	4°♎43'48	2.61571 AU
	1111 Nov 30 j 09:12	0°♍		morning rise	1116 Jul 25 j 15:27	23°♎26'21	
evening set	1111 Dec 03 j 01:46	2°♍04'59			1116 Aug 04 j 21:35	0°♈	
	1112 Jan 07 j 16:48	0°♎			1116 Sep 21 j 12:07	0°♍	
					1116 Nov 09 j 09:08	0°♊	
conjunction	1112 Feb 06 j 09:38	23°♎28'03	-1°-3'-44		1116 Dec 30 j 19:08	0°♋	
minimum elong	1112 Feb 06 j 10:54	23°♎30'31	1°03'46		1117 Mar 02 j 06:03	0°♌	
	1112 Feb 14 j 16:42	0°♍		desc. node	1117 Apr 10 j 11:23	9°♌25'36	
max. Earth dist.	1112 Mar 15 j 14:54	23°♍20'23	2.37965 AU	retrograde	1117 Apr 15 j 02:23	9°♌33'18	
	1112 Mar 24 j 06:47	0°♎		opposition	1117 May 18 j 12:31	3°♌08'12	-2°-3'-45
morning rise	1112 Apr 16 j 11:57	17°♎34'39		greatest brilliancy	1117 May 19 j 11:05	2°♌49'44	-2.3m
	1112 May 03 j 06:33	0°♏		min. Earth dist.	1117 May 26 j 21:25	0°♌24'17	0.45814 AU
	1112 Jun 14 j 08:03	0°♈			1117 May 28 j 04:19	30°♋♌	
asc. node	1112 Jun 17 j 23:20	2°♈30'51		direct	1117 Jun 24 j 03:34	25°♋18'05	
	1112 Jul 29 j 00:48	0°♎			1117 Jul 21 j 03:18	0°♌	
	1112 Sep 15 j 07:44	0°♈			1117 Sep 16 j 21:21	0°♍	
	1112 Nov 10 j 05:58	0°♍			1117 Oct 30 j 06:10	0°♎	
retrograde	1113 Jan 12 j 06:34	17°♍37'08			1117 Dec 10 j 05:35	0°♏	
opposition	1113 Feb 20 j 14:00	8°♍25'29	4°10'51		1118 Jan 20 j 07:10	0°♎	
greatest brilliancy	1113 Feb 21 j 03:45	8°♍11'56	-1.3m	asc. node	1118 Feb 07 j 20:44	13°♎19'02	
min. Earth dist.	1113 Feb 23 j 16:48	7°♍11'55	0.66179 AU		1118 Mar 03 j 13:01	0°♏	
	1113 Mar 18 j 05:46	30°♋♌			1118 Apr 16 j 10:26	0°♈	
direct	1113 Apr 02 j 23:21	28°♌23'55		evening set	1118 May 29 j 17:06	28°♈33'46	
	1113 Apr 19 j 15:11	0°♍			1118 May 31 j 22:08	0°♎	
	1113 Jul 01 j 00:49	0°♊					
desc. node	1113 Jul 06 j 14:16	3°♊10'13		conjunction	1118 Jul 16 j 23:16	29°♎37'34	1°07'14
	1113 Aug 18 j 12:28	0°♋		minimum elong	1118 Jul 16 j 22:41	29°♎36'38	1°07'14
	1113 Sep 30 j 08:27	0°♌			1118 Jul 17 j 13:19	0°♈	
	1113 Nov 09 j 05:28	0°♍		max. Earth dist.	1118 Jul 21 j 11:14	2°♈29'54	2.66917 AU
	1113 Dec 17 j 14:52	0°♎		morning rise	1118 Aug 31 j 07:16	28°♈29'45	
	1114 Jan 24 j 16:48	0°♏			1118 Sep 02 j 16:02	0°♍	
evening set	1114 Feb 10 j 15:20	13°♏13'00			1118 Oct 19 j 17:06	0°♊	
	1114 Mar 04 j 11:00	0°♎			1118 Dec 05 j 12:10	0°♋	
	1114 Apr 13 j 16:23	0°♏			1119 Jan 21 j 07:36	0°♌	
				desc. node	1119 Feb 26 j 11:02	22°♌49'02	
conjunction	1114 Apr 16 j 06:24	1°♏52'49	0°-12'-25		1119 Mar 10 j 01:51	0°♍	
minimum elong	1114 Apr 16 j 07:18	1°♏54'27	0°12'25		1119 May 01 j 10:14	0°♎	
behind sun begin	1114 Apr 15 j 14:54	1°♏24'40		retrograde	1119 Jul 01 j 20:46	18°♎57'09	
behind sun end	1114 Apr 16 j 23:42	2°♏24'13		opposition	1119 Aug 01 j 02:16	13°♎54'49	-6°-53'-17
asc. node	1114 May 05 j 21:19	15°♏58'12		greatest brilliancy	1119 Aug 01 j 01:07	13°♎55'34	-2.9m
	1114 May 25 j 21:34	0°♈		min. Earth dist.	1119 Jul 31 j 14:08	14°♎02'51	0.37340 AU
max. Earth dist.	1114 May 27 j 11:13	1°♈05'09	2.51047 AU	direct	1119 Aug 30 j 20:10	8°♎58'55	
morning rise	1114 Jun 13 j 20:03	12°♈58'35			1119 Nov 02 j 22:54	0°♏	
	1114 Jul 09 j 07:35	0°♎			1119 Dec 23 j 06:40	0°♎	
	1114 Aug 24 j 23:58	0°♈		asc. node	1119 Dec 26 j 18:56	2°♎13'20	
	1114 Oct 13 j 08:42	0°♍			1120 Feb 07 j 23:59	0°♏	
	1114 Dec 07 j 03:55	0°♊			1120 Mar 25 j 13:44	0°♈	
retrograde	1115 Feb 21 j 08:25	23°♊38'18			1120 May 11 j 17:00	0°♎	
opposition	1115 Mar 30 j 14:32	15°♊27'36	2°18'05		1120 Jun 28 j 05:09	0°♈	
greatest brilliancy	1115 Mar 31 j 10:45	15°♊08'35	-1.6m	evening set	1120 Jul 07 j 00:55	5°♈34'36	
min. Earth dist.	1115 Apr 06 j 09:03	12°♊55'09	0.58476 AU	max. Earth dist.	1120 Aug 12 j 17:38	28°♈53'09	2.66803 AU
direct	1115 May 10 j 04:41	5°♊45'34			1120 Aug 14 j 11:29	0°♍	
desc. node	1115 May 24 j 12:48	7°♊02'04					
	1115 Jul 21 j 01:17	0°♋		conjunction	1120 Aug 21 j 19:37	4°♍41'59	1°04'18
	1115 Sep 06 j 13:42	0°♌		minimum elong	1120 Aug 21 j 20:23	4°♍43'13	1°04'18
	1115 Oct 18 j 00:24	0°♍			1120 Sep 29 j 20:49	0°♊	
	1115 Nov 26 j 04:42	0°♎		morning rise	1120 Oct 05 j 07:41	3°♊34'39	
	1116 Jan 03 j 21:05	0°♏			1120 Nov 14 j 00:01	0°♋	
	1116 Feb 12 j 05:43	0°♎			1120 Dec 27 j 18:55	0°♌	
asc. node	1116 Mar 22 j 21:14	29°♎08'29		desc. node	1121 Jan 13 j 09:50	11°♌36'55	
	1116 Mar 24 j 01:54	0°♏			1121 Feb 08 j 09:15	0°♍	
evening set	1116 Apr 12 j 18:02	13°♏58'31			1121 Mar 22 j 03:36	0°♎	

	1121 May 02 j 22:55	0°♄			1126 Apr 19 j 16:26	0°♂		
	1121 Jun 16 j 01:57	0°♂			1126 Jun 15 j 15:22	0°♄		
	1121 Aug 14 j 23:21	0°♄			1126 Aug 03 j 13:37	0°♂		
retrograde	1121 Sep 06 j 02:32	3°♄20'13		desc. node	1126 Sep 05 j 07:03	21°♂41'34		
	1121 Sep 27 j 15:06	30°♄			1126 Sep 17 j 08:41	0°♄		
min. Earth dist.	1121 Oct 04 j 00:46	27°♂58'44	0.45658 AU		1126 Oct 29 j 04:03	0°♄		
greatest brilliancy	1121 Oct 11 j 09:50	25°♂24'58	-2.4m	evening set	1126 Nov 09 j 07:18	8°♄17'06		
opposition	1121 Oct 12 j 04:00	25°♂09'05	-1°-46'-5		1126 Dec 07 j 20:12	0°♄		
asc. node	1121 Nov 12 j 18:10	18°♂31'13		max. Earth dist.	1126 Dec 08 j 22:36	0°♄50'56	2.38527 AU	
direct	1121 Nov 13 j 18:35	18°♂30'48						
	1121 Dec 30 j 22:41	0°♄		conjunction	1127 Jan 08 j 21:30	25°♄00'03	-1°-2'-7	
	1122 Feb 28 j 03:45	0°♄		minimum elong	1127 Jan 08 j 19:55	24°♄56'56	1°02'08	
	1122 Apr 20 j 15:40	0°♄			1127 Jan 15 j 05:52	0°♄		
	1122 Jun 09 j 03:35	0°♂			1127 Feb 22 j 06:52	0°♄		
	1122 Jul 27 j 05:00	0°♄		morning rise	1127 Mar 19 j 10:48	19°♄39'27		
evening set	1122 Aug 13 j 06:00	10°♄53'23			1127 Apr 01 j 20:49	0°♂		
max. Earth dist.	1122 Sep 06 j 07:52	26°♄32'36	2.61347 AU		1127 May 11 j 19:47	0°♄		
	1122 Sep 11 j 13:47	0°♄			1127 Jun 22 j 22:06	0°♄		
				asc. node	1127 Jul 05 j 15:09	8°♄41'47		
conjunction	1122 Sep 28 j 11:56	11°♄16'05	0°35'55		1127 Aug 06 j 23:11	0°♄		
minimum elong	1122 Sep 28 j 13:04	11°♄17'58	0°35'55		1127 Sep 25 j 16:43	0°♂		
	1122 Oct 26 j 00:14	0°♄			1127 Nov 30 j 12:41	0°♄		
morning rise	1122 Nov 14 j 15:47	13°♄42'17		retrograde	1127 Dec 30 j 09:12	4°♄49'09		
desc. node	1122 Dec 01 j 09:04	25°♄35'03			1128 Jan 26 j 18:42	30°♄		
	1122 Dec 07 j 12:33	0°♄		opposition	1128 Feb 08 j 03:47	25°♄20'58	4°28'21	
	1123 Jan 17 j 09:30	0°♄		greatest brilliancy	1128 Feb 08 j 10:31	25°♄14'16	-1.2m	
	1123 Feb 26 j 02:25	0°♄		min. Earth dist.	1128 Feb 09 j 18:21	24°♄42'42	0.67441 AU	
	1123 Apr 06 j 08:05	0°♄		direct	1128 Mar 20 j 08:35	15°♄23'35		
	1123 May 16 j 02:21	0°♂			1128 May 15 j 17:13	0°♄		
	1123 Jun 26 j 22:22	0°♄			1128 Jul 11 j 06:22	0°♄		
	1123 Aug 13 j 10:52	0°♄		desc. node	1128 Jul 23 j 05:33	7°♄19'29		
asc. node	1123 Sep 30 j 17:30	20°♄48'32			1128 Aug 26 j 23:22	0°♄		
retrograde	1123 Oct 21 j 07:49	23°♄33'00			1128 Oct 08 j 07:04	0°♄		
min. Earth dist.	1123 Nov 23 j 16:09	16°♄06'31	0.58248 AU		1128 Nov 17 j 00:15	0°♄		
opposition	1123 Nov 29 j 16:19	13°♄44'39	2°33'22		1128 Dec 25 j 08:04	0°♄		
greatest brilliancy	1123 Nov 28 j 20:13	14°♄04'26	-1.7m	evening set	1129 Jan 13 j 09:44	15°♄04'07		
direct	1124 Jan 05 j 12:30	5°♄17'26			1129 Feb 01 j 08:17	0°♄		
	1124 Mar 23 j 13:54	0°♄			1129 Mar 11 j 23:52	0°♂		
	1124 May 17 j 23:42	0°♂						
	1124 Jul 07 j 02:22	0°♄		conjunction	1129 Mar 21 j 21:58	7°♂32'51	0°-37'-43	
	1124 Aug 23 j 02:07	0°♄		minimum elong	1129 Mar 22 j 00:44	7°♂38'05	0°37'42	
evening set	1124 Sep 21 j 03:21	19°♄28'40			1129 Apr 21 j 01:46	0°♄		
	1124 Oct 06 j 09:21	0°♄		max. Earth dist.	1129 May 09 j 23:28	13°♄40'16	2.45782 AU	
max. Earth dist.	1124 Oct 06 j 15:24	0°♄10'32	2.51033 AU	asc. node	1129 May 22 j 14:53	22°♄38'15		
desc. node	1124 Oct 18 j 08:27	8°♄24'08		morning rise	1129 May 24 j 14:32	24°♄01'58		
					1129 Jun 02 j 03:42	0°♄		
conjunction	1124 Nov 10 j 13:13	25°♄03'23	0°-14'-17		1129 Jul 16 j 13:36	0°♄		
minimum elong	1124 Nov 10 j 12:30	25°♄02'05	0°14'17		1129 Sep 01 j 14:41	0°♂		
behind sun begin	1124 Nov 10 j 01:42	24°♄42'26			1129 Oct 22 j 09:58	0°♄		
behind sun end	1124 Nov 10 j 23:19	25°♄21'45			1129 Dec 23 j 13:02	0°♄		
	1124 Nov 17 j 07:33	0°♄		retrograde	1130 Feb 04 j 18:03	9°♄08'44		
	1124 Dec 27 j 08:39	0°♄		opposition	1130 Mar 14 j 23:34	0°♄30'13	3°15'04	
morning rise	1125 Jan 05 j 06:09	6°♄48'45		greatest brilliancy	1130 Mar 15 j 20:23	0°♄10'10	-1.5m	
	1125 Feb 04 j 04:23	0°♄			1130 Mar 16 j 06:56	30°♄		
	1125 Mar 14 j 13:43	0°♄		min. Earth dist.	1130 Mar 20 j 09:31	28°♄25'22	0.62226 AU	
	1125 Apr 22 j 09:55	0°♂		direct	1130 Apr 25 j 03:42	20°♄33'45		
	1125 Jun 01 j 16:30	0°♄			1130 Jun 06 j 12:32	0°♄		
	1125 Jul 14 j 15:07	0°♄		desc. node	1130 Jun 10 j 04:45	1°♄29'53		
asc. node	1125 Aug 17 j 15:39	21°♄44'51			1130 Aug 02 j 13:59	0°♄		
	1125 Aug 31 j 15:32	0°♄			1130 Sep 16 j 07:04	0°♄		
	1125 Nov 11 j 13:30	0°♂			1130 Oct 26 j 20:36	0°♄		
retrograde	1125 Nov 25 j 20:47	1°♄16'12			1130 Dec 04 j 14:26	0°♄		
	1125 Dec 09 j 12:57	30°♄			1131 Jan 11 j 22:58	0°♄		
min. Earth dist.	1126 Jan 02 j 18:54	22°♄16'09	0.66060 AU		1131 Feb 20 j 00:09	0°♂		
opposition	1126 Jan 05 j 01:37	21°♄21'17	4°17'57	evening set	1131 Mar 22 j 16:12	22°♂49'19		
greatest brilliancy	1126 Jan 04 j 13:21	21°♄33'35	-1.3m		1131 Apr 01 j 12:55	0°♄		
direct	1126 Feb 13 j 18:43	11°♄53'56		asc. node	1131 Apr 09 j 13:19	5°♄46'28		

	1131 May 14 j 00:29	0°♊		retrograde	1136 Aug 14 j 12:04	7°♊28'06	
				min. Earth dist.	1136 Sep 10 j 00:46	2°♊50'31	0.40911 AU
conjunction	1131 May 19 j 17:44	3°♊55'46 0°24'11		greatest brilliancy	1136 Sep 15 j 19:56	1°♊02'55	-2.6m
minimum elong	1131 May 19 j 16:30	3°♊53'39 0°24'10		opposition	1136 Sep 17 j 03:38	0°♊38'12	-4°-16'-4
max. Earth dist.	1131 Jun 16 j 21:33	22°♊56'42 2.58027 AU			1136 Sep 19 j 05:08	30°♊	
	1131 Jun 27 j 13:02	0°♊		direct	1136 Oct 17 j 21:32	24°♊56'20	
morning rise	1131 Jul 11 j 01:57	8°♊52'29			1136 Nov 16 j 05:06	0°♊	
	1131 Aug 12 j 21:59	0°♊		asc. node	1136 Nov 29 j 09:42	4°♊47'36	
	1131 Sep 29 j 23:13	0°♊			1137 Jan 18 j 17:04	0°♊	
	1131 Nov 19 j 06:06	0°♊			1137 Mar 10 j 17:31	0°♊	
	1132 Jan 14 j 09:36	0°♊			1137 Apr 28 j 21:38	0°♊	
retrograde	1132 Mar 22 j 14:39	19°♊55'37			1137 Jun 16 j 09:57	0°♊	
opposition	1132 Apr 26 j 20:09	12°♊42'20 0°00'53		evening set	1137 Jul 29 j 18:08	27°♊15'02	
greatest brilliancy	1134 May 16 j 19:28	17°♊31'19 6.4m			1137 Aug 03 j 01:50	0°♊	
desc. node	1132 Apr 27 j 03:18	12°♊36'02		max. Earth dist.	1137 Aug 27 j 08:30	15°♊35'45	2.64120 AU
min. Earth dist.	1132 May 05 j 04:38	9°♊46'27 0.51087 AU					
direct	1132 Jun 04 j 13:44	3°♊51'41		conjunction	1137 Sep 13 j 10:25	26°♊43'50	0°49'49
	1132 Aug 16 j 01:03	0°♊		minimum elong	1137 Sep 13 j 11:36	26°♊45'46	0°49'49
	1132 Sep 30 j 09:45	0°♊			1137 Sep 18 j 09:43	0°♊	
	1132 Nov 10 j 03:50	0°♊		morning rise	1137 Oct 29 j 00:42	27°♊14'36	
	1132 Dec 19 j 19:36	0°♊			1137 Nov 02 j 01:26	0°♊	
	1133 Jan 28 j 23:05	0°♊			1137 Dec 14 j 23:43	0°♊	
asc. node	1133 Feb 24 j 12:22	19°♊19'25		desc. node	1137 Dec 18 j 01:21	2°♊11'20	
	1133 Mar 11 j 11:44	0°♊			1138 Jan 25 j 09:28	0°♊	
	1133 Apr 23 j 19:44	0°♊			1138 Mar 06 j 16:28	0°♊	
evening set	1133 May 12 j 17:40	12°♊42'49			1138 Apr 15 j 12:59	0°♊	
	1133 Jun 07 j 22:11	0°♊			1138 May 26 j 03:02	0°♊	
					1138 Jul 08 j 17:57	0°♊	
conjunction	1133 Jul 01 j 20:45	15°♊32'44 1°01'02			1138 Sep 03 j 08:55	0°♊	
minimum elong	1133 Jul 01 j 19:38	15°♊30'56 1°01'01		retrograde	1138 Oct 05 j 07:26	6°♊24'03	
max. Earth dist.	1133 Jul 12 j 03:40	22°♊10'09 2.65474 AU		asc. node	1138 Oct 17 j 08:36	5°♊20'00	
	1133 Jul 24 j 09:02	0°♊			1138 Nov 04 j 19:55	30°♊	
morning rise	1133 Aug 17 j 08:58	15°♊17'19		min. Earth dist.	1138 Nov 05 j 13:20	29°♊43'42	0.53661 AU
	1133 Sep 09 j 14:01	0°♊		opposition	1138 Nov 12 j 19:24	26°♊57'07	1°16'12
	1133 Oct 27 j 03:19	0°♊		greatest brilliancy	1138 Nov 12 j 06:08	27°♊09'48	-1.9m
	1133 Dec 14 j 02:58	0°♊		direct	1138 Dec 18 j 03:01	19°♊05'23	
	1134 Feb 01 j 12:08	0°♊			1139 Feb 03 j 00:14	0°♊	
desc. node	1134 Mar 15 j 02:06	23°♊21'59			1139 Apr 05 j 02:52	0°♊	
	1134 Mar 28 j 04:56	0°♊			1139 May 27 j 07:03	0°♊	
retrograde	1134 May 30 j 06:01	18°♊37'21			1139 Jul 15 j 09:15	0°♊	
opposition	1134 Jun 29 j 22:00	13°♊27'39 -5°-49'-11			1139 Aug 31 j 01:25	0°♊	
greatest brilliancy	1134 Jul 01 j 02:43	13°♊07'39 -2.8m		evening set	1139 Sep 05 j 23:54	3°♊55'47	
min. Earth dist.	1134 Jul 04 j 13:39	12°♊10'18 0.38973 AU		max. Earth dist.	1139 Sep 24 j 04:38	16°♊08'35	2.55590 AU
direct	1134 Jul 31 j 18:11	7°♊44'06			1139 Oct 14 j 08:59	0°♊	
	1134 Oct 04 j 12:26	0°♊					
	1134 Nov 21 j 04:40	0°♊		conjunction	1139 Oct 24 j 04:27	6°♊51'29	0°07'12
	1135 Jan 04 j 08:44	0°♊		minimum elong	1139 Oct 24 j 04:45	6°♊52'00	0°07'11
asc. node	1135 Jan 12 j 11:29	5°♊32'29		behind sun begin	1139 Oct 23 j 09:47	6°♊18'41	
	1135 Feb 17 j 12:47	0°♊		behind sun end	1139 Oct 24 j 23:43	7°♊25'20	
	1135 Apr 03 j 16:56	0°♊		desc. node	1139 Nov 04 j 23:43	15°♊12'49	
	1135 May 20 j 00:41	0°♊			1139 Nov 25 j 11:54	0°♊	
evening set	1135 Jun 23 j 06:09	21°♊50'13		morning rise	1139 Dec 14 j 12:57	14°♊01'24	
	1135 Jul 06 j 02:32	0°♊			1140 Jan 04 j 19:45	0°♊	
max. Earth dist.	1135 Aug 04 j 19:15	18°♊52'24 2.67513 AU			1140 Feb 12 j 22:32	0°♊	
					1140 Mar 22 j 14:00	0°♊	
conjunction	1135 Aug 08 j 15:17	21°♊18'56 1°08'33			1140 Apr 30 j 15:48	0°♊	
minimum elong	1135 Aug 08 j 15:35	21°♊19'24 1°08'34			1140 Jun 10 j 06:28	0°♊	
	1135 Aug 22 j 05:59	0°♊			1140 Jul 24 j 01:40	0°♊	
morning rise	1135 Sep 22 j 02:16	19°♊48'30		asc. node	1140 Sep 03 j 08:44	24°♊41'02	
	1135 Oct 07 j 19:43	0°♊			1140 Sep 13 j 15:10	0°♊	
	1135 Nov 22 j 10:52	0°♊		retrograde	1140 Nov 12 j 04:52	17°♊37'18	
	1136 Jan 06 j 02:13	0°♊		min. Earth dist.	1140 Dec 18 j 11:05	9°♊10'25	0.63718 AU
desc. node	1136 Jan 31 j 02:28	17°♊03'39		greatest brilliancy	1140 Dec 21 j 12:08	7°♊57'20	-1.4m
	1136 Feb 18 j 22:32	0°♊		opposition	1140 Dec 22 j 06:04	7°♊39'23	3°50'52
	1136 Apr 02 j 12:00	0°♊			1141 Jan 14 j 21:48	30°♊	
	1136 May 17 j 09:49	0°♊		direct	1141 Jan 30 j 00:21	28°♊31'19	
	1136 Jul 11 j 06:45	0°♊			1141 Feb 15 j 01:07	0°♊	

	1141 May 02 j 00:10	0°♈		behind sun end	1146 Apr 30 j 03:24	15°♌14'46	
	1141 Jun 24 j 02:43	0°♍			1146 May 21 j 04:27	0°♊	
	1141 Aug 11 j 01:32	0°♊		max. Earth dist.	1146 Jun 04 j 13:28	9°♊52'20	2.53712 AU
desc. node	1141 Sep 21 j 22:30	28°♊09'11		morning rise	1146 Jun 24 j 04:58	23°♊06'52	
	1141 Sep 24 j 14:16	0°♋			1146 Jul 04 j 14:05	0°♎	
evening set	1141 Oct 19 j 12:39	17°♋40'51			1146 Aug 20 j 02:02	0°♈	
max. Earth dist.	1141 Nov 04 j 14:43	29°♋24'42	2.43175 AU		1146 Oct 07 j 20:04	0°♍	
	1141 Nov 05 j 09:52	0°♌			1146 Nov 29 j 10:21	0°♊	
					1147 Feb 08 j 12:10	0°♋	
conjunction	1141 Dec 14 j 08:36	29°♌21'14	0°-47'-46	retrograde	1147 Mar 03 j 14:03	2°♋55'55	
minimum elong	1141 Dec 14 j 06:18	29°♌16'48	0°47'45		1147 Mar 25 j 05:01	30°♋	
	1141 Dec 15 j 04:47	0°♍		opposition	1147 Apr 09 j 05:18	25°♊03'29	1°35'20
	1142 Jan 22 j 17:43	0°♎		greatest brilliancy	1147 Apr 09 j 21:44	24°♊48'19	-1.8m
morning rise	1142 Feb 17 j 02:52	19°♎58'14		min. Earth dist.	1147 Apr 16 j 16:33	22°♊18'32	0.56013 AU
	1142 Mar 01 j 21:08	0°♏		desc. node	1147 May 14 j 19:36	15°♊43'03	
	1142 Apr 09 j 12:23	0°♐		direct	1147 May 19 j 07:34	15°♊34'56	
	1142 May 19 j 12:31	0°♑			1147 Jul 10 j 12:26	0°♋	
	1142 Jun 30 j 18:38	0°♒			1147 Aug 30 j 16:33	0°♌	
asc. node	1142 Jul 22 j 07:40	14°♒29'52			1147 Oct 12 j 01:02	0°♍	
	1142 Aug 15 j 11:04	0°♎			1147 Nov 20 j 15:17	0°♎	
	1142 Oct 06 j 21:04	0°♈			1147 Dec 29 j 13:56	0°♏	
retrograde	1142 Dec 16 j 21:29	22°♈07'09			1148 Feb 07 j 03:40	0°♐	
opposition	1143 Jan 25 j 23:18	12°♈25'49	4°33'49	asc. node	1148 Mar 13 j 04:19	25°♐41'28	
greatest brilliancy	1143 Jan 25 j 22:21	12°♈26'45	-1.2m		1148 Mar 19 j 04:24	0°♑	
min. Earth dist.	1143 Jan 26 j 01:12	12°♈23'55	0.67681 AU	evening set	1148 Apr 24 j 04:36	25°♑15'52	
direct	1143 Mar 07 j 18:11	2°♈37'06			1148 May 01 j 02:18	0°♒	
	1143 May 30 j 02:55	0°♍			1148 Jun 14 j 21:37	0°♎	
	1143 Jul 21 j 04:59	0°♊					
desc. node	1143 Aug 09 j 21:30	12°♊33'27		conjunction	1148 Jun 15 j 20:20	0°♎37'19	0°50'24
	1143 Sep 04 j 21:57	0°♋		minimum elong	1148 Jun 15 j 18:51	0°♎34'53	0°50'23
	1143 Oct 16 j 22:52	0°♌		max. Earth dist.	1148 Jul 02 j 14:38	11°♎33'56	2.63198 AU
	1143 Nov 25 j 14:33	0°♍			1148 Jul 31 j 05:48	0°♈	
evening set	1143 Dec 17 j 16:36	17°♍12'57		morning rise	1148 Aug 03 j 02:11	1°♈49'09	
	1144 Jan 02 j 22:10	0°♎			1148 Sep 16 j 15:42	0°♍	
	1144 Feb 09 j 21:37	0°♏			1148 Nov 03 j 22:52	0°♊	
					1148 Dec 23 j 18:53	0°♋	
conjunction	1144 Feb 22 j 19:23	10°♏07'23	0°-57'-44		1149 Feb 16 j 08:52	0°♌	
minimum elong	1144 Feb 22 j 22:05	10°♏12'40	0°57'44	desc. node	1149 Mar 31 j 18:45	17°♌55'19	
	1144 Mar 19 j 11:23	0°♐		retrograde	1149 Apr 30 j 03:24	22°♌36'29	
max. Earth dist.	1144 Apr 12 j 19:57	18°♐26'11	2.40441 AU	opposition	1149 Jun 01 j 10:43	16°♌40'16	-3°-26'-12
	1144 Apr 28 j 10:54	0°♑		greatest brilliancy	1149 Jun 02 j 18:40	16°♌15'22	-2.5m
morning rise	1144 May 01 j 07:01	2°♑04'41		min. Earth dist.	1149 Jun 09 j 03:03	14°♌17'14	0.43023 AU
asc. node	1144 Jun 08 j 06:03	29°♑09'28		direct	1149 Jul 06 j 12:56	9°♌32'54	
	1144 Jun 09 j 11:08	0°♒			1149 Sep 05 j 12:39	0°♍	
	1144 Jul 23 j 23:37	0°♎			1149 Oct 22 j 09:22	0°♎	
	1144 Sep 09 j 15:42	0°♈			1149 Dec 03 j 15:48	0°♏	
	1144 Nov 01 j 22:58	0°♍			1150 Jan 14 j 10:57	0°♐	
retrograde	1145 Jan 20 j 13:19	25°♍35'41		asc. node	1150 Jan 29 j 02:33	10°♐22'59	
opposition	1145 Feb 28 j 13:01	16°♍34'42	3°54'26		1150 Feb 26 j 04:58	0°♑	
greatest brilliancy	1145 Mar 01 j 06:00	16°♍18'07	-1.3m		1150 Apr 11 j 10:48	0°♒	
min. Earth dist.	1145 Mar 04 j 11:50	15°♍02'09	0.65031 AU		1150 May 27 j 04:20	0°♎	
direct	1145 Apr 10 j 22:35	6°♍33'16		evening set	1150 Jun 07 j 21:59	7°♎34'37	
	1145 Jun 23 j 06:22	0°♊			1150 Jul 12 j 22:27	0°♈	
desc. node	1145 Jun 26 j 20:03	1°♊53'41					
	1145 Aug 12 j 16:01	0°♋		conjunction	1150 Jul 25 j 08:19	7°♊54'29	1°08'54
	1145 Sep 25 j 01:15	0°♌		minimum elong	1150 Jul 25 j 08:04	7°♊54'05	1°08'53
	1145 Nov 04 j 03:34	0°♍		max. Earth dist.	1150 Jul 26 j 17:59	8°♊48'06	2.67375 AU
	1145 Dec 12 j 15:45	0°♎			1150 Aug 29 j 00:52	0°♍	
	1146 Jan 19 j 19:30	0°♏		morning rise	1150 Sep 08 j 05:24	6°♍30'01	
evening set	1146 Feb 25 j 19:13	28°♏36'00			1150 Oct 14 j 21:15	0°♊	
	1146 Feb 27 j 15:22	0°♐			1150 Nov 30 j 04:43	0°♋	
	1146 Apr 08 j 22:21	0°♑			1151 Jan 15 j 01:43	0°♌	
asc. node	1146 Apr 26 j 05:43	12°♑28'11		desc. node	1151 Feb 16 j 17:50	21°♑23'06	
					1151 Mar 01 j 23:37	0°♍	
conjunction	1146 Apr 29 j 03:01	14°♑31'30	0°01'51		1151 Apr 18 j 08:35	0°♎	
minimum elong	1146 Apr 29 j 02:51	14°♑31'13	0°01'51		1151 Jun 14 j 17:28	0°♏	
behind sun begin	1146 Apr 28 j 02:19	13°♑47'36		retrograde	1151 Jul 19 j 02:16	7°♑11'51	

min. Earth dist.	1151 Aug 15 j 18:40	2° 41 '38	0.37817 AU		1156 Oct 01 j 16:59	0° 48 '	
greatest brilliancy	1151 Aug 18 j 10:52	1° 45 '29	-2.8m	desc. node	1156 Oct 08 j 14:11	4° 48 '56	
opposition	1151 Aug 19 j 06:26	1° 44 '01	-6°-26'00	max. Earth dist.	1156 Oct 15 j 16:52	9° 48 '50'19	2.48308 AU
	1151 Aug 25 j 18:43	30° 48 '			1156 Nov 12 j 14:48	0° 48 '	
direct	1151 Sep 17 j 19:06	26° 48 '45'06					
	1151 Oct 10 j 15:29	0° 48 '		conjunction	1156 Nov 21 j 23:54	6° 48 '55'45	0°-27'-1
	1151 Dec 13 j 23:24	0° 48 '		minimum elong	1156 Nov 21 j 22:30	6° 48 '53'10	0°27'02
asc. node	1151 Dec 17 j 02:09	1° 48 '48'54			1156 Dec 22 j 14:01	0° 48 '	
	1152 Feb 01 j 06:55	0° 48 '		morning rise	1157 Jan 19 j 16:12	21° 48 '41'57	
	1152 Mar 19 j 23:11	0° 48 '			1157 Jan 30 j 07:30	0° 48 '	
	1152 May 06 j 16:18	0° 48 '			1157 Mar 09 j 14:29	0° 48 '	
	1152 Jun 23 j 11:42	0° 48 '			1157 Apr 17 j 08:06	0° 48 '	
evening set	1152 Jul 15 j 08:50	13° 48 '47'41			1157 May 27 j 10:55	0° 48 '	
	1152 Aug 09 j 21:02	0° 48 '			1157 Jul 09 j 00:30	0° 48 '	
max. Earth dist.	1152 Aug 18 j 01:24	5° 48 '14'10	2.66078 AU	asc. node	1157 Aug 07 j 23:43	19° 48 '38'22	
					1157 Aug 24 j 20:08	0° 48 '	
conjunction	1152 Aug 29 j 23:29	12° 48 '54'19	1°00'03		1157 Oct 22 j 12:52	0° 48 '	
minimum elong	1152 Aug 30 j 00:28	12° 48 '55'53	1°00'03	retrograde	1157 Dec 03 j 13:12	9° 48 '16'15	
	1152 Sep 25 j 05:52	0° 48 '		min. Earth dist.	1158 Jan 11 j 07:45	29° 48 '59'47	0.66915 AU
morning rise	1152 Oct 13 j 16:57	12° 48 '12'02			1158 Jan 11 j 07:33	30° 48 '	
	1152 Nov 09 j 04:41	0° 48 '		opposition	1158 Jan 12 j 18:26	29° 48 '25'04	4°27'30
	1152 Dec 22 j 15:37	0° 48 '		greatest brilliancy	1158 Jan 12 j 09:58	29° 48 '33'33	-1.3m
desc. node	1153 Jan 03 j 17:00	8° 48 '30'08		direct	1158 Feb 21 j 22:17	19° 48 '48'55	
	1153 Feb 02 j 18:14	0° 48 '			1158 Apr 09 j 01:10	0° 48 '	
	1153 Mar 15 j 21:27	0° 48 '			1158 Jun 09 j 13:10	0° 48 '	
	1153 Apr 25 j 18:40	0° 48 '			1158 Jul 29 j 09:36	0° 48 '	
	1153 Jun 07 j 00:44	0° 48 '		desc. node	1158 Aug 26 j 13:31	18° 48 '26'38	
	1153 Jul 25 j 15:05	0° 48 '			1158 Sep 12 j 11:51	0° 48 '	
retrograde	1153 Sep 17 j 08:33	16° 48 '31'45			1158 Oct 24 j 09:21	0° 48 '	
min. Earth dist.	1153 Oct 16 j 10:51	10° 48 '41'41	0.48544 AU	evening set	1158 Nov 22 j 08:51	21° 48 '47'19	
opposition	1153 Oct 24 j 11:42	7° 48 '46'21	0°-30'-43		1158 Dec 03 j 01:23	0° 48 '	
greatest brilliancy	1153 Oct 24 j 05:58	7° 48 '51'34	-2.2m		1159 Jan 10 j 10:20	0° 48 '	
asc. node	1153 Nov 03 j 01:47	4° 48 '30'45		max. Earth dist.	1159 Jan 23 j 04:40	10° 48 '04'46	2.37125 AU
direct	1153 Nov 27 j 01:41	0° 48 '39'20					
	1154 Feb 20 j 04:17	0° 48 '		conjunction	1159 Jan 24 j 17:22	11° 48 '17'16	-1°-4'-56
	1154 Apr 14 j 19:43	0° 48 '		minimum elong	1159 Jan 24 j 17:16	11° 48 '17'04	1°04'58
	1154 Jun 04 j 02:09	0° 48 '			1159 Feb 17 j 10:35	0° 48 '	
	1154 Jul 22 j 11:27	0° 48 '			1159 Mar 27 j 23:56	0° 48 '	
evening set	1154 Aug 21 j 17:27	19° 48 '22'26		morning rise	1159 Apr 05 j 04:40	6° 48 '15'43	
	1154 Sep 06 j 23:04	0° 48 '			1159 May 06 j 22:19	0° 48 '	
max. Earth dist.	1154 Sep 12 j 12:14	3° 48 '40'23	2.59511 AU		1159 Jun 17 j 22:30	0° 48 '	
				asc. node	1159 Jun 25 j 22:52	5° 48 '31'35	
conjunction	1154 Oct 07 j 11:38	20° 48 '28'04	0°26'16		1159 Aug 01 j 16:35	0° 48 '	
minimum elong	1154 Oct 07 j 12:34	20° 48 '29'39	0°26'16		1159 Sep 19 j 09:29	0° 48 '	
	1154 Oct 21 j 08:49	0° 48 '			1159 Nov 16 j 19:29	0° 48 '	
desc. node	1154 Nov 21 j 15:49	22° 48 '01'01		retrograde	1160 Jan 07 j 05:56	12° 48 '35'06	
morning rise	1154 Nov 24 j 20:06	24° 48 '17'40		opposition	1160 Feb 15 j 19:26	3° 48 '15'30	4°19'27
	1154 Dec 02 j 18:07	0° 48 '		greatest brilliancy	1160 Feb 16 j 06:10	3° 48 '04'55	-1.2m
	1155 Jan 12 j 10:15	0° 48 '		min. Earth dist.	1160 Feb 18 j 06:06	2° 48 '17'37	0.66876 AU
	1155 Feb 20 j 21:41	0° 48 '			1160 Feb 24 j 04:51	30° 48 '	
	1155 Mar 31 j 21:13	0° 48 '		direct	1160 Mar 28 j 04:06	23° 48 '15'12	
	1155 May 10 j 07:32	0° 48 '			1160 May 03 j 05:38	0° 48 '	
	1155 Jun 20 j 12:42	0° 48 '			1160 Jul 04 j 21:09	0° 48 '	
	1155 Aug 05 j 01:00	0° 48 '		desc. node	1160 Jul 13 j 13:05	5° 48 '06'37	
asc. node	1155 Sep 21 j 00:17	24° 48 '17'49			1160 Aug 21 j 14:21	0° 48 '	
	1155 Oct 08 j 04:12	0° 48 '			1160 Oct 03 j 06:04	0° 48 '	
retrograde	1155 Oct 29 j 21:51	2° 48 '59'01			1160 Nov 12 j 02:00	0° 48 '	
	1155 Nov 19 j 12:13	30° 48 '			1160 Dec 20 j 10:55	0° 48 '	
min. Earth dist.	1155 Dec 03 j 08:18	25° 48 '09'44	0.60450 AU	greatest brilliancy	1160 Dec 21 j 09:39	0° 48 '44'50	1.2m
opposition	1155 Dec 08 j 14:26	23° 48 '04'40	3°07'34		1161 Jan 27 j 11:41	0° 48 '	
greatest brilliancy	1155 Dec 07 j 17:42	23° 48 '25'13	-1.6m	evening set	1161 Jan 29 j 10:27	1° 48 '31'48	
direct	1156 Jan 15 j 04:54	14° 48 '21'02			1161 Mar 07 j 03:50	0° 48 '	
	1156 Mar 14 j 04:25	0° 48 '					
	1156 May 12 j 00:11	0° 48 '		conjunction	1161 Apr 05 j 16:11	22° 48 '12'13	0°-23'-24
	1156 Jul 02 j 00:00	0° 48 '		minimum elong	1161 Apr 05 j 17:57	22° 48 '15'29	0°23'23
	1156 Aug 18 j 07:32	0° 48 '			1161 Apr 16 j 06:35	0° 48 '	
evening set	1156 Sep 30 j 23:17	29° 48 '29'12		asc. node	1161 May 12 j 20:45	19° 48 '07'43	

max. Earth dist.	1161 May 20 j 14:29	24°♄34'47	2.48758 AU	opposition	1166 Jul 17 j 17:11	0°♌42'51	-6°-41'-29
	1161 May 28 j 08:53	0°♈		greatest brilliancy	1166 Jul 18 j 08:00	0°♌33'00	-2.8m
morning rise	1161 Jun 05 j 10:54	5°♈35'13		min. Earth dist.	1166 Jul 19 j 17:24	0°♌10'50	0.37684 AU
	1161 Jul 11 j 17:22	0°♉			1166 Jul 20 j 09:46	30°♌♌	
	1161 Aug 27 j 11:31	0°♊		direct	1166 Aug 17 j 03:13	25°♌33'37	
	1161 Oct 16 j 07:25	0°♋			1166 Sep 12 j 14:33	0°♌	
	1161 Dec 12 j 04:55	0°♌			1166 Nov 11 j 11:08	0°♍	
retrograde	1162 Feb 13 j 23:20	17°♌43'49			1166 Dec 28 j 05:14	0°♎	
opposition	1162 Mar 23 j 17:24	9°♌19'50	2°44'10	asc. node	1167 Jan 02 j 18:07	3°♎39'14	
greatest brilliancy	1162 Mar 24 j 14:24	8°♌59'51	-1.5m		1167 Feb 11 j 14:02	0°♏	
min. Earth dist.	1162 Mar 29 j 22:03	6°♌58'49	0.60275 AU		1167 Mar 29 j 10:24	0°♐	
	1162 Apr 24 j 22:30	30°♌♌			1167 May 15 j 03:47	0°♑	
direct	1162 May 03 j 15:39	29°♌29'59		evening set	1167 Jul 01 j 18:53	0°♒12'59	
	1162 May 12 j 14:17	0°♑			1167 Jul 01 j 10:41	0°♒	
desc. node	1162 May 31 j 11:30	3°♑58'12		max. Earth dist.	1167 Aug 10 j 01:47	25°♒09'35	2.67225 AU
	1162 Jul 26 j 04:25	0°♒					
	1162 Sep 10 j 08:29	0°♓		conjunction	1167 Aug 16 j 18:40	29°♒26'21	1°06'32
	1162 Oct 21 j 09:41	0°♐		minimum elong	1167 Aug 16 j 19:16	29°♒27'17	1°06'31
	1162 Nov 29 j 09:15	0°♑			1167 Aug 17 j 15:44	0°♒	
	1163 Jan 06 j 21:29	0°♍		morning rise	1167 Sep 30 j 04:56	28°♒05'09	
	1163 Feb 15 j 01:35	0°♎			1167 Oct 03 j 03:23	0°♑	
	1163 Mar 27 j 17:08	0°♏			1167 Nov 17 j 12:09	0°♒	
asc. node	1163 Mar 30 j 20:21	2°♏15'29			1167 Dec 31 j 16:14	0°♓	
evening set	1163 Apr 04 j 12:22	5°♏36'22		desc. node	1168 Jan 21 j 08:30	14°♓18'32	
	1163 May 09 j 06:53	0°♐			1168 Feb 12 j 18:56	0°♑	
					1168 Mar 26 j 05:53	0°♒	
conjunction	1163 May 30 j 11:11	14°♐24'54	0°35'09		1168 May 08 j 01:30	0°♓	
minimum elong	1163 May 30 j 09:40	14°♐22'22	0°35'08		1168 Jun 23 j 15:19	0°♑	
	1163 Jun 22 j 20:36	0°♑		retrograde	1168 Aug 27 j 18:19	23°♑02'47	
max. Earth dist.	1163 Jun 23 j 10:30	0°♑22'53	2.60087 AU	min. Earth dist.	1168 Sep 23 j 22:10	18°♑02'50	0.43403 AU
morning rise	1163 Jul 20 j 03:09	17°♑47'17		opposition	1168 Oct 01 j 19:42	15°♑25'25	-2°-49'-6
	1163 Aug 08 j 04:02	0°♒		greatest brilliancy	1168 Sep 30 j 17:44	15°♑47'09	-2.5m
	1163 Sep 24 j 22:05	0°♒		direct	1168 Nov 02 j 14:08	9°♑12'14	
	1163 Nov 13 j 07:19	0°♑		asc. node	1168 Nov 19 j 17:06	11°♑02'17	
	1164 Jan 05 j 06:20	0°♒			1169 Jan 08 j 13:23	0°♓	
	1164 Mar 21 j 15:20	0°♓			1169 Mar 04 j 03:35	0°♐	
retrograde	1164 Apr 04 j 09:52	1°♓05'55			1169 Apr 23 j 12:00	0°♑	
desc. node	1164 Apr 17 j 09:58	0°♓02'38			1169 Jun 11 j 12:50	0°♒	
	1164 Apr 17 j 16:21	30°♒♒			1169 Jul 29 j 10:19	0°♒	
opposition	1164 May 08 j 16:03	24°♒18'23	-1°-6'-35	evening set	1169 Aug 07 j 00:54	5°♒29'15	
greatest brilliancy	1164 May 09 j 05:10	24°♒07'16	-2.2m	max. Earth dist.	1169 Sep 02 j 01:14	22°♒17'17	2.62674 AU
min. Earth dist.	1164 May 17 j 04:22	21°♒25'27	0.48174 AU		1169 Sep 13 j 19:26	0°♑	
direct	1164 Jun 15 j 08:48	15°♒58'03					
	1164 Aug 03 j 23:44	0°♓		conjunction	1169 Sep 21 j 23:07	5°♑23'46	0°42'10
	1164 Sep 22 j 17:07	0°♑		minimum elong	1169 Sep 22 j 00:18	5°♑25'43	0°42'10
	1164 Nov 03 j 16:26	0°♒			1169 Oct 28 j 08:56	0°♒	
	1164 Dec 13 j 23:29	0°♓		morning rise	1169 Nov 07 j 08:04	6°♒53'02	
	1165 Jan 23 j 13:11	0°♑		desc. node	1169 Dec 08 j 07:23	28°♒42'54	
asc. node	1165 Feb 14 j 20:04	16°♑07'01			1169 Dec 10 j 02:28	0°♓	
	1165 Mar 06 j 09:41	0°♓			1170 Jan 20 j 05:27	0°♑	
	1165 Apr 18 j 23:27	0°♐			1170 Mar 01 j 04:41	0°♒	
evening set	1165 May 22 j 14:10	22°♐22'20			1170 Apr 09 j 16:20	0°♓	
	1165 Jun 03 j 05:50	0°♑			1170 May 19 j 17:14	0°♑	
					1170 Jul 01 j 02:19	0°♓	
conjunction	1165 Jul 10 j 14:36	24°♑08'37	1°05'09		1170 Aug 19 j 17:59	0°♐	
minimum elong	1165 Jul 10 j 13:47	24°♑07'19	1°05'08	asc. node	1170 Oct 07 j 16:57	16°♐32'18	
max. Earth dist.	1165 Jul 17 j 14:53	28°♑38'02	2.66372 AU	retrograde	1170 Oct 14 j 15:03	16°♐52'24	
	1165 Jul 19 j 18:10	0°♒		min. Earth dist.	1170 Nov 16 j 01:06	9°♐46'25	0.56284 AU
morning rise	1165 Aug 25 j 09:42	23°♒20'14		opposition	1170 Nov 22 j 15:54	7°♐11'57	2°04'04
	1165 Sep 04 j 21:29	0°♒		greatest brilliancy	1170 Nov 21 j 21:27	7°♐29'55	-1.8m
	1165 Oct 22 j 03:36	0°♑			1170 Dec 16 j 13:20	30°♒♒	
	1165 Dec 08 j 10:00	0°♒		direct	1170 Dec 28 j 21:00	28°♒59'38	
	1166 Jan 25 j 04:29	0°♓			1171 Jan 10 j 19:25	0°♐	
desc. node	1166 Mar 05 j 09:31	23°♓47'22			1171 Mar 28 j 22:52	0°♑	
	1166 Mar 16 j 02:03	0°♑			1171 May 21 j 19:39	0°♒	
	1166 May 17 j 03:57	0°♒			1171 Jul 10 j 12:02	0°♒	
retrograde	1166 Jun 17 j 15:49	5°♒40'24			1171 Aug 26 j 09:36	0°♑	

evening set	1171 Sep 15 j 01:20	13°♂05'26			1176 Jun 04 j 15:21	0°♂	
max. Earth dist.	1171 Oct 01 j 12:26	24°♂18'10	2.53141 AU		1176 Jul 19 j 00:23	0°♂	
	1171 Oct 09 j 18:05	0°♂			1176 Sep 04 j 05:15	0°♂	
desc. node	1171 Oct 26 j 06:47	11°♂36'32			1176 Oct 25 j 19:16	0°♂	
					1177 Jan 02 j 19:11	0°♂	
conjunction	1171 Nov 03 j 08:48	17°♂22'27	0°-4'-59	retrograde	1177 Jan 29 j 01:55	3°♂44'06	
minimum elong	1171 Nov 03 j 08:32	17°♂22'00	0°05'00		1177 Feb 22 j 08:49	30°♂	
behind sun begin	1171 Nov 02 j 11:48	16°♂44'52		opposition	1177 Mar 08 j 16:54	24°♂54'52	3°33'10
behind sun end	1171 Nov 04 j 05:17	17°♂59'09		greatest brilliancy	1177 Mar 09 j 12:18	24°♂36'04	-1.4m
	1171 Nov 20 j 19:27	0°♂		min. Earth dist.	1177 Mar 13 j 11:39	23°♂03'52	0.63607 AU
morning rise	1171 Dec 26 j 23:04	26°♂55'49		direct	1177 Apr 19 j 01:06	14°♂55'14	
	1171 Dec 31 j 00:07	0°♂			1177 Jun 13 j 20:19	0°♂	
	1172 Feb 07 j 23:11	0°♂		desc. node	1177 Jun 17 j 03:09	1°♂32'38	
	1172 Mar 17 j 11:00	0°♂			1177 Aug 06 j 10:20	0°♂	
	1172 Apr 25 j 08:43	0°♂			1177 Sep 19 j 13:46	0°♂	
	1172 Jun 04 j 17:10	0°♂			1177 Oct 29 j 22:47	0°♂	
	1172 Jul 17 j 21:10	0°♂			1177 Dec 07 j 14:11	0°♂	
asc. node	1172 Aug 24 j 15:04	23°♂37'05			1178 Jan 14 j 20:13	0°♂	
	1172 Sep 04 j 21:27	0°♂			1178 Feb 22 j 18:05	0°♂	
retrograde	1172 Nov 20 j 02:11	26°♂00'17		evening set	1178 Mar 12 j 05:01	13°♂07'50	
min. Earth dist.	1172 Dec 27 j 07:36	17°♂14'27	0.65147 AU		1178 Apr 04 j 03:04	0°♂	
opposition	1172 Dec 30 j 06:27	16°♂03'30	4°08'31	asc. node	1178 Apr 16 j 12:42	8°♂56'36	
greatest brilliancy	1172 Dec 29 j 15:25	16°♂18'33	-1.3m				
direct	1173 Feb 07 j 14:19	6°♂44'06		conjunction	1178 May 11 j 03:25	26°♂18'58	0°15'11
	1173 Apr 24 j 09:36	0°♂		minimum elong	1178 May 11 j 02:33	26°♂17'26	0°15'10
	1173 Jun 18 j 13:29	0°♂		behind sun begin	1178 May 10 j 19:46	26°♂05'39	
	1173 Aug 06 j 02:44	0°♂		behind sun end	1178 May 11 j 09:19	26°♂29'13	
desc. node	1173 Sep 12 j 05:38	24°♂44'21			1178 May 16 j 10:52	0°♂	
	1173 Sep 19 j 20:24	0°♂		max. Earth dist.	1178 Jun 11 j 21:22	18°♂01'31	2.56190 AU
evening set	1173 Oct 30 j 22:49	29°♂26'02			1178 Jun 29 j 20:40	0°♂	
	1173 Oct 31 j 17:15	0°♂		morning rise	1178 Jul 04 j 00:50	2°♂45'03	
max. Earth dist.	1173 Nov 20 j 10:55	14°♂43'54	2.40461 AU		1178 Aug 15 j 05:28	0°♂	
	1173 Dec 10 j 11:26	0°♂			1178 Oct 02 j 12:10	0°♂	
					1178 Nov 22 j 13:50	0°♂	
conjunction	1173 Dec 28 j 08:07	13°♂50'32	0°-57'-7		1179 Jan 21 j 05:43	0°♂	
minimum elong	1173 Dec 28 j 05:56	13°♂46'16	0°57'06	retrograde	1179 Mar 14 j 13:51	12°♂47'08	
	1174 Jan 17 j 22:53	0°♂		opposition	1179 Apr 19 j 11:37	5°♂15'13	0°44'20
	1174 Feb 25 j 00:45	0°♂		greatest brilliancy	1179 Apr 19 j 20:35	5°♂07'09	-1.9m
morning rise	1174 Mar 06 j 03:38	7°♂09'19		min. Earth dist.	1179 Apr 27 j 12:43	2°♂21'45	0.53370 AU
	1174 Apr 04 j 14:23	0°♂			1179 May 04 j 15:56	30°♂	
	1174 May 14 j 12:29	0°♂		desc. node	1179 May 05 j 01:57	29°♂52'24	
	1174 Jun 25 j 14:29	0°♂		direct	1179 May 28 j 22:39	26°♂04'57	
asc. node	1174 Jul 12 j 13:50	11°♂33'28			1179 Jun 23 j 02:07	0°♂	
	1174 Aug 09 j 18:59	0°♂			1179 Aug 22 j 21:04	0°♂	
	1174 Sep 29 j 07:07	0°♂			1179 Oct 05 j 16:32	0°♂	
retrograde	1174 Dec 24 j 14:16	29°♂53'30			1179 Nov 14 j 20:38	0°♂	
opposition	1175 Feb 02 j 13:10	20°♂19'00	4°31'57		1179 Dec 24 j 03:37	0°♂	
greatest brilliancy	1175 Feb 02 j 16:32	20°♂15'39	-1.2m		1180 Feb 01 j 23:29	0°♂	
min. Earth dist.	1175 Feb 03 j 11:32	19°♂56'45	0.67685 AU	asc. node	1180 Mar 03 j 11:19	22°♂18'10	
direct	1175 Mar 15 j 14:42	10°♂24'56			1180 Mar 14 j 05:16	0°♂	
	1175 May 22 j 00:53	0°♂			1180 Apr 26 j 07:20	0°♂	
	1175 Jul 15 j 11:15	0°♂		evening set	1180 May 04 j 23:23	5°♂52'56	
desc. node	1175 Jul 31 j 04:13	9°♂47'40			1180 Jun 10 j 05:23	0°♂	
	1175 Aug 30 j 18:53	0°♂					
	1175 Oct 12 j 01:01	0°♂		conjunction	1180 Jun 25 j 03:30	9°♂44'25	0°57'07
	1175 Nov 20 j 18:21	0°♂		minimum elong	1180 Jun 25 j 02:12	9°♂42'18	0°57'06
	1175 Dec 29 j 02:26	0°♂		max. Earth dist.	1180 Jul 08 j 07:13	18°♂15'19	2.64561 AU
evening set	1176 Jan 02 j 02:07	3°♂08'56			1180 Jul 26 j 14:09	0°♂	
	1176 Feb 05 j 02:09	0°♂		morning rise	1180 Aug 11 j 08:34	10°♂03'14	
					1180 Sep 11 j 20:41	0°♂	
conjunction	1176 Mar 09 j 21:50	26°♂20'40	0°-47'-28		1180 Oct 29 j 16:45	0°♂	
minimum elong	1176 Mar 10 j 00:58	26°♂26'42	0°47'27		1180 Dec 17 j 08:53	0°♂	
	1176 Mar 14 j 16:06	0°♂			1181 Feb 06 j 11:05	0°♂	
	1176 Apr 23 j 15:43	0°♂		desc. node	1181 Mar 22 j 00:31	22°♂20'31	
max. Earth dist.	1176 Apr 30 j 04:12	4°♂45'44	2.43349 AU		1181 Apr 10 j 00:24	0°♂	
morning rise	1176 May 14 j 21:56	15°♂23'25		retrograde	1181 May 16 j 12:39	7°♂07'26	
asc. node	1176 May 29 j 13:56	25°♂46'07		opposition	1181 Jun 16 j 21:26	1°♂38'57	-4°-50'-39

greatest brilliancy	1181 Jun 18 j 07:22	1°☾14'03	-2.6m	conjunction	1186 Oct 16 j 19:26	0°♌02'32	0°15'37
	1181 Jun 22 j 12:57	30°♊♌		minimum elong	1186 Oct 16 j 20:03	0°♌03'37	0°15'37
min. Earth dist.	1181 Jun 23 j 04:57	29°♌48'33	0.40572 AU	behind sun begin	1186 Oct 16 j 14:38	29°♌54'14	
direct	1181 Jul 20 j 04:13	25°♌18'56		behind sun end	1186 Oct 17 j 01:28	0°♌13'00	
	1181 Aug 16 j 01:22	0°☾			1186 Oct 16 j 17:58	0°♌	
	1181 Oct 12 j 21:16	0°♊		desc. node	1186 Nov 11 j 22:23	18°♌24'42	
	1181 Nov 26 j 09:54	0°♋			1186 Nov 28 j 00:45	0°♌	
	1182 Jan 08 j 07:29	0°♎		morning rise	1186 Dec 05 j 16:13	5°♌34'18	
asc. node	1182 Jan 19 j 10:35	7°♎45'26			1187 Jan 07 j 13:01	0°☾	
	1182 Feb 20 j 17:25	0°♏			1187 Feb 15 j 19:54	0°♊	
	1182 Apr 06 j 09:47	0°♐			1187 Mar 26 j 14:46	0°♋	
	1182 May 22 j 09:55	0°♑			1187 May 04 j 19:15	0°♎	
evening set	1182 Jun 16 j 18:42	16°♑16'08			1187 Jun 14 j 13:46	0°♏	
	1182 Jul 08 j 07:38	0°♒			1187 Jul 28 j 20:36	0°♐	
max. Earth dist.	1182 Aug 01 j 00:22	15°♒04'30	2.67559 AU	asc. node	1187 Sep 11 j 07:58	25°♐26'07	
					1187 Sep 21 j 02:34	0°♑	
conjunction	1182 Aug 02 j 13:25	16°♒03'27	1°09'10	retrograde	1187 Nov 07 j 04:45	11°♑57'28	
minimum elong	1182 Aug 02 j 13:30	16°♒03'35	1°09'10	min. Earth dist.	1187 Dec 12 j 16:04	3°♑46'53	0.62368 AU
	1182 Aug 24 j 10:36	0°♎		greatest brilliancy	1187 Dec 16 j 07:15	2°♑20'00	-1.5m
morning rise	1182 Sep 16 j 03:37	14°♎32'08		opposition	1187 Dec 17 j 02:58	2°♑00'20	3°35'07
	1182 Oct 10 j 03:20	0°♏			1187 Dec 22 j 05:45	30°♊	
	1182 Nov 25 j 01:39	0°♌		direct	1188 Jan 24 j 09:49	23°♐02'23	
	1183 Jan 09 j 05:16	0°♌			1188 Mar 01 j 07:29	0°♑	
desc. node	1183 Feb 07 j 01:03	19°♌21'16			1188 May 05 j 14:43	0°♒	
	1183 Feb 22 j 20:23	0°☾			1188 Jun 26 j 18:57	0°♎	
	1183 Apr 08 j 16:38	0°♊			1188 Aug 13 j 12:15	0°♏	
	1183 May 26 j 10:00	0°♋			1188 Sep 27 j 00:49	0°♌	
retrograde	1183 Aug 04 j 05:54	25°♋07'56		desc. node	1188 Sep 28 j 21:08	1°♌17'11	
min. Earth dist.	1183 Aug 30 j 19:23	20°♋40'34	0.39233 AU	evening set	1188 Oct 11 j 06:21	9°♌59'54	
greatest brilliancy	1183 Sep 04 j 10:13	19°♋19'49	-2.8m	max. Earth dist.	1188 Oct 25 j 23:44	20°♌33'06	2.45475 AU
opposition	1183 Sep 05 j 16:20	18°♋57'44	-5°-20'-5		1188 Nov 07 j 22:33	0°♌	
direct	1183 Oct 05 j 16:41	13°♋39'00					
	1183 Dec 01 j 09:53	0°♎		conjunction	1188 Dec 04 j 05:54	19°♌38'33	0°-39'-17
asc. node	1183 Dec 07 j 09:04	2°♎56'10		minimum elong	1188 Dec 04 j 03:53	19°♌34'45	0°39'17
	1184 Jan 24 j 19:29	0°♏			1188 Dec 17 j 20:08	0°☾	
	1184 Mar 14 j 02:32	0°♐			1189 Jan 25 j 11:20	0°♊	
	1184 May 01 j 13:22	0°♑		morning rise	1189 Feb 04 j 06:23	7°♊41'04	
	1184 Jun 18 j 17:37	0°♒		greatest brilliancy	1189 Feb 16 j 14:59	17°♊23'51	1.2m
evening set	1184 Jul 23 j 14:32	21°♒56'26			1189 Mar 04 j 16:15	0°♋	
	1184 Aug 05 j 06:53	0°♎			1189 Apr 12 j 07:53	0°♎	
max. Earth dist.	1184 Aug 23 j 11:31	11°♎39'45	2.65104 AU		1189 May 22 j 07:48	0°♏	
					1189 Jul 03 j 15:04	0°♐	
conjunction	1184 Sep 07 j 04:25	21°♎11'10	0°54'33	asc. node	1189 Jul 29 j 07:11	17°♐08'01	
minimum elong	1184 Sep 07 j 05:32	21°♎12'58	0°54'32		1189 Aug 18 j 14:38	0°♑	
	1184 Sep 20 j 15:48	0°♏			1189 Oct 11 j 16:46	0°♒	
morning rise	1184 Oct 22 j 07:35	21°♏04'28		retrograde	1189 Dec 11 j 04:53	17°♒08'49	
	1184 Nov 04 j 11:27	0°♌		opposition	1190 Jan 20 j 09:13	7°♒22'46	4°32'39
	1184 Dec 17 j 15:58	0°♌		greatest brilliancy	1190 Jan 20 j 04:53	7°♒27'06	-1.2m
desc. node	1184 Dec 25 j 00:10	5°♌12'31		min. Earth dist.	1190 Jan 19 j 18:56	7°♒37'02	0.67465 AU
	1185 Jan 28 j 09:24	0°☾			1190 Feb 10 j 18:30	30°♊	
	1185 Mar 10 j 00:48	0°♊		direct	1190 Mar 01 j 22:19	27°♊39'11	
	1185 Apr 19 j 06:40	0°♋			1190 Mar 22 j 11:02	0°♒	
	1185 May 30 j 09:27	0°♎			1190 Jun 02 j 22:51	0°♎	
	1185 Jul 14 j 08:40	0°♏			1190 Jul 24 j 01:40	0°♏	
retrograde	1185 Sep 27 j 20:16	28°♏38'43		desc. node	1190 Aug 16 j 20:27	15°♏20'19	
asc. node	1185 Oct 24 j 07:48	23°♏42'10			1190 Sep 07 j 13:40	0°♌	
min. Earth dist.	1185 Oct 28 j 02:46	22°♏21'06	0.51414 AU		1190 Oct 19 j 14:27	0°♌	
opposition	1185 Nov 04 j 19:51	19°♏27'31	0°34'49		1190 Nov 28 j 07:08	0°☾	
greatest brilliancy	1185 Nov 04 j 13:01	19°♏33'55	-2.0m	evening set	1190 Dec 06 j 06:16	6°☾10'14	
direct	1185 Dec 09 j 09:34	11°♏54'38			1191 Jan 05 j 15:33	0°♊	
	1186 Feb 10 j 12:13	0°♐					
	1186 Apr 08 j 14:59	0°♑		conjunction	1191 Feb 10 j 00:22	27°♊56'28	-1°-2'-45
	1186 May 29 j 21:57	0°♒		minimum elong	1191 Feb 10 j 02:03	27°♊59'47	1°02'45
	1186 Jul 17 j 17:15	0°♎			1191 Feb 12 j 15:07	0°♋	
evening set	1186 Aug 30 j 08:35	28°♎01'59			1191 Mar 23 j 03:55	0°♎	
	1186 Sep 02 j 08:20	0°♏		max. Earth dist.	1191 Mar 24 j 11:53	1°♎01'18	2.38353 AU
max. Earth dist.	1186 Sep 19 j 00:11	11°♏04'56	2.57439 AU	morning rise	1191 Apr 20 j 22:20	21°♎45'35	

	1191 May 02 j 01:37	0°♄		direct	1196 Jun 26 j 22:07	29°♍10'45	
	1191 Jun 13 j 00:19	0°♂			1196 Jul 07 j 19:14	0°♄	
asc. node	1191 Jun 16 j 05:21	2°♂13'38			1196 Sep 13 j 11:02	0°♄	
	1191 Jul 27 j 12:59	0°♄			1196 Oct 27 j 12:39	0°♄	
	1191 Sep 13 j 12:07	0°♂			1196 Dec 07 j 17:37	0°♄	
	1191 Nov 07 j 06:50	0°♄			1197 Jan 17 j 21:15	0°♄	
retrograde	1192 Jan 15 j 08:06	20°♄28'07		asc. node	1197 Feb 05 j 01:49	13°♄02'22	
opposition	1192 Feb 23 j 15:01	11°♄18'24	4°06'15		1197 Mar 01 j 03:37	0°♄	
greatest brilliancy	1192 Feb 24 j 05:24	11°♄04'18	-1.3m		1197 Apr 14 j 00:51	0°♂	
min. Earth dist.	1192 Feb 26 j 22:08	10°♄00'50	0.65982 AU		1197 May 29 j 12:13	0°♄	
direct	1192 Apr 05 j 01:25	1°♄16'49		evening set	1197 Jun 01 j 01:36	1°♄39'39	
	1192 Jun 27 j 18:02	0°♄			1197 Jul 15 j 03:09	0°♂	
desc. node	1192 Jul 03 j 18:48	3°♄22'01					
	1192 Aug 15 j 22:37	0°♍		conjunction	1197 Jul 19 j 02:53	2°♂32'48	1°07'49
	1192 Sep 28 j 01:18	0°♄		minimum elong	1197 Jul 19 j 02:24	2°♂32'02	1°07'49
	1192 Nov 07 j 01:41	0°♄		max. Earth dist.	1197 Jul 22 j 22:16	4°♂58'33	2.67037 AU
	1192 Dec 15 j 12:39	0°♄			1197 Aug 31 j 05:41	0°♄	
	1193 Jan 22 j 14:50	0°♄		morning rise	1197 Sep 02 j 08:10	1°♄20'19	
evening set	1193 Feb 14 j 02:01	17°♄30'32			1197 Oct 17 j 06:07	0°♄	
	1193 Mar 02 j 08:14	0°♄			1197 Dec 02 j 23:12	0°♍	
	1193 Apr 11 j 12:00	0°♄			1198 Jan 18 j 13:54	0°♄	
				desc. node	1198 Feb 23 j 16:26	22°♄59'28	
conjunction	1193 Apr 19 j 07:35	5°♄40'50	0°-8'-49		1198 Mar 06 j 20:54	0°♄	
minimum elong	1193 Apr 19 j 08:13	5°♄41'58	0°08'49		1198 Apr 26 j 14:50	0°♄	
behind sun begin	1193 Apr 18 j 10:32	5°♄02'45		retrograde	1198 Jul 05 j 15:18	23°♄40'36	
behind sun end	1193 Apr 20 j 05:53	6°♄21'08		min. Earth dist.	1198 Aug 03 j 23:02	18°♄52'29	0.37346 AU
asc. node	1193 May 03 j 05:02	15°♄39'00		opposition	1198 Aug 05 j 01:12	18°♄35'00	-6°-51'-12
	1193 May 23 j 15:00	0°♂		greatest brilliancy	1198 Aug 04 j 20:25	18°♄38'12	-2.9m
max. Earth dist.	1193 May 29 j 12:35	4°♂04'56	2.51560 AU	direct	1198 Sep 03 j 17:12	13°♄39'56	
morning rise	1193 Jun 16 j 09:21	16°♂16'33			1198 Oct 28 j 22:48	0°♄	
	1193 Jul 06 j 22:26	0°♄			1198 Dec 20 j 01:39	0°♄	
	1193 Aug 22 j 11:25	0°♂		asc. node	1198 Dec 24 j 01:04	2°♄28'47	
	1193 Oct 10 j 13:44	0°♄			1199 Feb 05 j 05:39	0°♄	
	1193 Dec 03 j 12:20	0°♄			1199 Mar 23 j 23:24	0°♂	
retrograde	1194 Feb 23 j 17:34	26°♄41'23			1199 May 10 j 04:29	0°♄	
opposition	1194 Apr 01 j 22:03	18°♄34'03	2°06'53		1199 Jun 26 j 17:55	0°♂	
greatest brilliancy	1194 Apr 02 j 17:20	18°♄16'00	-1.7m	evening set	1199 Jul 10 j 04:39	8°♂29'31	
min. Earth dist.	1194 Apr 08 j 20:55	15°♄58'16	0.58013 AU		1199 Aug 13 j 01:32	0°♄	
direct	1194 May 12 j 11:15	8°♄54'17		max. Earth dist.	1199 Aug 15 j 08:26	1°♄27'41	2.66703 AU
desc. node	1194 May 21 j 17:50	9°♄27'09					
	1194 Jul 17 j 08:32	0°♍		conjunction	1199 Aug 24 j 21:49	7°♄35'07	1°03'12
	1194 Sep 03 j 21:26	0°♄		minimum elong	1199 Aug 24 j 22:39	7°♄36'27	1°03'11
	1194 Oct 15 j 15:32	0°♄			1199 Sep 28 j 12:02	0°♄	
	1194 Nov 23 j 22:51	0°♄		morning rise	1199 Oct 08 j 10:26	6°♄31'15	
	1195 Jan 01 j 16:17	0°♄			1199 Nov 12 j 15:50	0°♍	
	1195 Feb 10 j 00:45	0°♄			1199 Dec 26 j 10:30	0°♄	
asc. node	1195 Mar 21 j 03:56	28°♄47'51		desc. node	1200 Jan 11 j 15:22	11°♄19'54	
	1195 Mar 22 j 20:01	0°♄			1200 Feb 06 j 23:33	0°♄	
evening set	1195 Apr 16 j 12:47	17°♄31'15			1200 Mar 19 j 15:15	0°♄	
	1195 May 04 j 12:59	0°♂			1200 Apr 30 j 05:00	0°♄	
					1200 Jun 12 j 16:58	0°♄	
conjunction	1195 Jun 09 j 13:19	24°♂17'36	0°44'31		1200 Aug 06 j 06:06	0°♄	
minimum elong	1195 Jun 09 j 11:45	24°♂15'01	0°44'30	retrograde	1200 Sep 08 j 18:57	7°♄15'30	
	1195 Jun 18 j 04:26	0°♄		min. Earth dist.	1200 Oct 06 j 23:23	1°♄48'45	0.46194 AU
max. Earth dist.	1195 Jun 29 j 12:02	7°♄25'19	2.61908 AU		1200 Oct 12 j 03:42	30°♄♄	
morning rise	1195 Jul 28 j 18:53	26°♄21'49		greatest brilliancy	1200 Oct 14 j 11:34	29°♄10'32	-2.3m
	1195 Aug 03 j 11:16	0°♂		opposition	1200 Oct 15 j 02:52	28°♄57'04	-1°-26'-33
	1195 Sep 19 j 23:44	0°♄		asc. node	1200 Nov 10 j 01:04	22°♄32'17	
	1195 Nov 07 j 16:27	0°♄		direct	1200 Nov 16 j 20:47	22°♄13'15	
	1195 Dec 28 j 14:39	0°♍			1200 Dec 24 j 16:25	0°♄	
	1196 Feb 25 j 11:08	0°♄			1201 Feb 24 j 20:51	0°♂	
desc. node	1196 Apr 07 j 17:27	12°♄33'16			1201 Apr 17 j 20:45	0°♄	
retrograde	1196 Apr 18 j 09:21	13°♄13'26			1201 Jun 06 j 13:29	0°♂	
opposition	1196 May 21 j 13:30	6°♄53'42	-2°-23'-3		1201 Jul 24 j 18:00	0°♄	
greatest brilliancy	1196 May 22 j 14:55	6°♄33'01	-2.4m	evening set	1201 Aug 15 j 09:47	13°♄49'56	
min. Earth dist.	1196 May 29 j 19:38	4°♄13'02	0.45263 AU	max. Earth dist.	1201 Sep 07 j 23:52	29°♄11'34	2.61026 AU
	1196 Jun 16 j 01:53	30°♄♍			1201 Sep 09 j 05:17	0°♄	

conjunction	1201 Sep 30 j 17:01	14°♌18'43	0°33'22			1206 Nov 23 j 21:49	0°♏	
minimum elong	1201 Sep 30 j 18:06	14°♌20'31	0°33'21	retrograde		1207 Jan 01 j 08:26	7°♏37'08	
	1201 Oct 23 j 17:47	0°♍				1207 Feb 05 j 11:38	30°♏♌	
morning rise	1201 Nov 17 j 01:30	16°♍58'41		opposition		1207 Feb 10 j 03:14	28°♌10'30	4°25'58
desc. node	1201 Nov 28 j 14:15	25°♍10'40		greatest brilliancy		1207 Feb 10 j 10:47	28°♌03'01	-1.2m
	1201 Dec 05 j 07:32	0°♎		min. Earth dist.		1207 Feb 11 j 22:00	27°♌28'10	0.67368 AU
	1202 Jan 15 j 05:07	0°♏		direct		1207 Mar 23 j 09:55	18°♌12'21	
	1202 Feb 23 j 21:48	0°♐				1207 May 12 j 01:36	0°♏	
	1202 Apr 04 j 02:11	0°♑				1207 Jul 09 j 09:36	0°♌	
	1202 May 13 j 17:28	0°♒		desc. node		1207 Jul 21 j 11:32	7°♌18'18	
	1202 Jun 24 j 06:48	0°♓				1207 Aug 25 j 13:03	0°♍	
	1202 Aug 09 j 22:28	0°♈				1207 Oct 07 j 01:36	0°♎	
asc. node	1202 Sep 27 j 23:48	22°♈38'22				1207 Nov 15 j 21:10	0°♏	
retrograde	1202 Oct 23 j 12:45	26°♈43'50				1207 Dec 24 j 05:49	0°♐	
min. Earth dist.	1202 Nov 26 j 02:00	19°♈13'20	0.58691 AU	evening set		1208 Jan 18 j 01:27	19°♐36'41	
opposition	1202 Dec 01 j 23:20	16°♈54'16	2°43'49			1208 Jan 31 j 05:44	0°♑	
greatest brilliancy	1202 Dec 01 j 02:37	17°♈14'39	-1.7m	greatest brilliancy		1208 Feb 07 j 13:29	5°♑44'53	1.2m
direct	1203 Jan 08 j 00:02	8°♈23'34				1208 Mar 09 j 20:11	0°♒	
	1203 Mar 20 j 16:55	0°♉						
	1203 May 16 j 01:51	0°♊		conjunction		1208 Mar 25 j 10:22	11°♒50'49	0°-34'-14
	1203 Jul 05 j 12:11	0°♋		minimum elong		1208 Mar 25 j 12:57	11°♒55'41	0°34'13
	1203 Aug 21 j 16:20	0°♌				1208 Apr 18 j 20:19	0°♓	
evening set	1203 Sep 24 j 12:45	22°♌41'42		max. Earth dist.		1208 May 12 j 17:31	17°♓15'17	2.46383 AU
	1203 Oct 05 j 02:44	0°♍		asc. node		1208 May 19 j 20:02	22°♓17'30	
max. Earth dist.	1203 Oct 09 j 17:25	3°♍12'58	2.50533 AU	morning rise		1208 May 27 j 12:56	27°♓42'05	
desc. node	1203 Oct 16 j 12:41	7°♍59'39				1208 May 30 j 20:03	0°♈	
						1208 Jul 14 j 03:06	0°♉	
conjunction	1203 Nov 14 j 05:04	28°♍35'35	0°-17'-35			1208 Aug 29 j 23:50	0°♊	
minimum elong	1203 Nov 14 j 04:11	28°♍33'58	0°17'35			1208 Oct 19 j 09:01	0°♋	
	1203 Nov 16 j 03:14	0°♌				1208 Dec 18 j 05:54	0°♌	
	1203 Dec 26 j 05:47	0°♍		retrograde		1209 Feb 06 j 22:54	12°♌05'08	
morning rise	1204 Jan 09 j 10:23	10°♍52'42		opposition		1209 Mar 17 j 03:43	3°♌29'14	3°06'35
	1204 Feb 03 j 02:06	0°♎		greatest brilliancy		1209 Mar 18 j 00:27	3°♌09'22	-1.5m
	1204 Mar 12 j 11:04	0°♏		min. Earth dist.		1209 Mar 22 j 17:56	1°♌20'46	0.61890 AU
	1204 Apr 20 j 05:48	0°♐				1209 Mar 26 j 08:42	30°♏♏	
	1204 May 30 j 09:26	0°♑		direct		1209 Apr 27 j 08:07	23°♏33'51	
	1204 Jul 12 j 02:28	0°♒				1209 May 31 j 11:49	0°♌	
asc. node	1204 Aug 14 j 22:39	21°♒51'05		desc. node		1209 Jun 07 j 09:59	2°♌32'32	
	1204 Aug 28 j 12:50	0°♓				1209 Jul 30 j 15:05	0°♍	
	1204 Nov 01 j 02:23	0°♈				1209 Sep 13 j 20:38	0°♎	
retrograde	1204 Nov 27 j 20:31	4°♈08'31				1209 Oct 24 j 15:07	0°♏	
	1204 Dec 22 j 17:59	30°♏♓				1209 Dec 02 j 10:56	0°♐	
min. Earth dist.	1205 Jan 04 j 23:26	25°♓05'07	0.66247 AU			1210 Jan 09 j 19:45	0°♑	
opposition	1205 Jan 07 j 02:06	24°♓14'24	4°21'20			1210 Feb 17 j 20:04	0°♒	
greatest brilliancy	1205 Jan 06 j 14:34	24°♓25'57	-1.3m	evening set		1210 Mar 25 j 18:25	26°♒42'16	
direct	1205 Feb 15 j 21:49	14°♓45'05				1210 Mar 30 j 07:13	0°♓	
	1205 Apr 15 j 09:21	0°♈		asc. node		1210 Apr 06 j 19:14	5°♓24'51	
	1205 Jun 12 j 17:29	0°♉				1210 May 11 j 16:52	0°♊	
	1205 Aug 01 j 01:05	0°♋						
desc. node	1205 Sep 02 j 11:47	21°♋23'46		conjunction		1210 May 22 j 10:13	7°♋21'48	0°27'16
	1205 Sep 15 j 01:00	0°♌		minimum elong		1210 May 22 j 08:53	7°♋19'31	0°27'15
	1205 Oct 26 j 23:22	0°♍		max. Earth dist.		1210 Jun 18 j 18:36	25°♋46'47	2.58446 AU
evening set	1205 Nov 12 j 07:10	12°♍09'33				1210 Jun 25 j 03:26	0°♎	
	1205 Dec 05 j 17:17	0°♏		morning rise		1210 Jul 13 j 09:57	11°♏58'29	
max. Earth dist.	1205 Dec 15 j 00:51	7°♏12'20	2.38137 AU			1210 Aug 10 j 10:17	0°♊	
						1210 Sep 27 j 08:18	0°♋	
conjunction	1206 Jan 12 j 10:58	29°♏27'03	-1°-3'-14			1210 Nov 16 j 07:44	0°♌	
minimum elong	1206 Jan 12 j 09:40	29°♏24'29	1°03'14			1211 Jan 10 j 07:37	0°♍	
	1206 Jan 13 j 03:42	0°♎		retrograde		1211 Mar 26 j 12:40	23°♍18'36	
	1206 Feb 20 j 04:34	0°♏		desc. node		1211 Apr 25 j 08:23	17°♍56'27	
morning rise	1206 Mar 23 j 07:20	24°♏17'00		opposition		1211 Apr 30 j 13:10	16°♍10'12	0°-15'-35
	1206 Mar 30 j 17:31	0°♐		greatest brilliancy		1211 Apr 21 j 03:49	19°♍15'46	-2.1m
	1206 May 09 j 14:34	0°♑		min. Earth dist.		1211 May 08 j 22:58	13°♍14'05	0.50542 AU
	1206 Jun 20 j 13:50	0°♒		direct		1211 Jun 08 j 03:27	7°♍24'29	
asc. node	1206 Jul 02 j 21:57	8°♒28'38				1211 Aug 13 j 07:20	0°♓	
	1206 Aug 04 j 09:46	0°♓				1211 Sep 28 j 16:10	0°♏	
	1206 Sep 22 j 15:22	0°♈				1211 Nov 08 j 17:26	0°♐	

	1211 Dec 18 j 11:55	0° H		morning rise	1216 Oct 31 j 07:29	0° M 22'42	
	1212 Jan 27 j 16:06	0° Y			1216 Dec 12 j 17:14	0° J	
asc. node	1212 Feb 22 j 18:57	19° Y 01'02		desc. node	1216 Dec 15 j 05:48	1° J 47'58	
	1212 Mar 09 j 04:18	0° B			1217 Jan 23 j 03:06	0° C	
	1212 Apr 21 j 11:17	0° II			1217 Mar 04 j 09:27	0° \approx	
evening set	1212 May 15 j 05:21	15° II 56'59			1217 Apr 13 j 04:15	0° H	
	1212 Jun 05 j 12:38	0° C			1217 May 23 j 14:06	0° Y	
					1217 Jul 05 j 17:21	0° B	
conjunction	1212 Jul 04 j 02:55	18° C 33'45	1°02'19		1217 Aug 28 j 05:32	0° II	
minimum elong	1212 Jul 04 j 01:53	18° C 32'05	1°02'19	retrograde	1217 Oct 07 j 15:04	9° II 44'50	
max. Earth dist.	1212 Jul 13 j 20:46	24° C 49'36	2.65664 AU	asc. node	1217 Oct 14 j 16:17	9° II 23'11	
	1212 Jul 21 j 22:35	0° Q		min. Earth dist.	1217 Nov 08 j 01:54	3° II 00'19	0.54174 AU
morning rise	1212 Aug 19 j 11:29	18° Q 10'59		opposition	1217 Nov 15 j 05:59	0° II 15'24	1°29'50
	1212 Sep 07 j 02:43	0° M		greatest brilliancy	1217 Nov 14 j 14:55	0° II 29'52	-1.9m
	1212 Oct 24 j 14:24	0° L			1217 Nov 15 j 22:06	30° R B	
	1212 Dec 11 j 10:01	0° M		direct	1217 Dec 20 j 18:47	22° B 19'35	
	1213 Jan 29 j 08:46	0° J			1218 Jan 28 j 01:44	0° II	
desc. node	1213 Mar 12 j 07:57	24° J 05'57			1218 Apr 01 j 22:16	0° C	
	1213 Mar 23 j 11:48	0° C			1218 May 24 j 13:57	0° Q	
retrograde	1213 Jun 03 j 07:26	23° C 03'57			1218 Jul 12 j 21:25	0° M	
opposition	1213 Jul 03 j 17:41	17° C 58'06	-6°-3'-50		1218 Aug 28 j 17:07	0° L	
greatest brilliancy	1213 Jul 04 j 20:56	17° C 39'25	-2.8m	evening set	1218 Sep 08 j 04:40	6° L 56'08	
min. Earth dist.	1213 Jul 07 j 23:53	16° C 48'11	0.38653 AU	max. Earth dist.	1218 Sep 25 j 21:13	18° L 50'21	2.55140 AU
direct	1213 Aug 04 j 06:29	12° C 22'32			1218 Oct 12 j 03:19	0° M	
	1213 Sep 29 j 16:47	0° \approx					
	1213 Nov 18 j 00:29	0° H		conjunction	1218 Oct 26 j 13:57	10° M 06'14	0°04'05
	1214 Jan 01 j 15:09	0° Y		minimum elong	1218 Oct 26 j 14:07	10° M 06'32	0°04'05
asc. node	1214 Jan 09 j 17:24	5° Y 29'49		behind sun begin	1218 Oct 25 j 17:38	9° M 30'26	
	1214 Feb 14 j 23:18	0° B		behind sun end	1218 Oct 27 j 10:37	10° M 42'41	
	1214 Apr 01 j 05:05	0° II		desc. node	1218 Nov 02 j 05:16	14° M 48'18	
	1214 May 17 j 13:27	0° C			1218 Nov 23 j 07:57	0° J	
evening set	1214 Jun 25 j 10:54	24° C 47'34		morning rise	1218 Dec 17 j 08:31	17° J 42'58	
	1214 Jul 03 j 15:43	0° Q			1219 Jan 02 j 16:39	0° C	
max. Earth dist.	1214 Aug 06 j 07:09	21° Q 22'38	2.67479 AU		1219 Feb 10 j 19:24	0° \approx	
					1219 Mar 21 j 10:00	0° H	
conjunction	1214 Aug 10 j 17:37	24° Q 12'12	1°08'05		1219 Apr 29 j 09:53	0° Y	
minimum elong	1214 Aug 10 j 18:01	24° Q 12'50	1°08'05		1219 Jun 08 j 20:54	0° B	
	1214 Aug 19 j 19:42	0° M			1219 Jul 22 j 08:20	0° II	
morning rise	1214 Sep 24 j 04:15	22° M 42'51		asc. node	1219 Sep 01 j 14:42	25° II 05'32	
	1214 Oct 05 j 09:52	0° L			1219 Sep 10 j 18:22	0° C	
	1214 Nov 20 j 00:56	0° M		retrograde	1219 Nov 15 j 05:43	20° C 33'33	
	1215 Jan 03 j 15:09	0° J		min. Earth dist.	1219 Dec 21 j 17:15	12° C 02'40	0.64034 AU
desc. node	1215 Jan 28 j 07:15	16° J 51'53		opposition	1219 Dec 25 j 08:00	10° C 35'58	3°56'36
	1215 Feb 16 j 08:45	0° C		greatest brilliancy	1219 Dec 24 j 14:33	10° C 53'25	-1.4m
	1215 Mar 31 j 16:31	0° \approx		direct	1220 Feb 02 j 05:22	1° C 25'22	
	1215 May 14 j 23:56	0° H			1220 Apr 28 j 14:40	0° Q	
	1215 Jul 05 j 11:12	0° Y			1220 Jun 21 j 09:45	0° M	
retrograde	1215 Aug 18 j 15:32	11° Y 50'38			1220 Aug 08 j 15:23	0° L	
min. Earth dist.	1215 Sep 14 j 07:05	7° Y 08'52	0.41331 AU	desc. node	1220 Sep 19 j 04:24	27° L 48'34	
greatest brilliancy	1215 Sep 20 j 07:05	5° Y 15'46	-2.6m		1220 Sep 22 j 08:18	0° M	
opposition	1215 Sep 21 j 13:42	4° Y 51'30	-3°-55'-46	evening set	1220 Oct 22 j 02:43	21° M 07'05	
	1215 Oct 10 j 16:40	30° R H			1220 Nov 03 j 06:39	0° J	
direct	1215 Oct 22 j 12:54	29° H 03'51		max. Earth dist.	1220 Nov 07 j 13:43	3° J 10'06	2.42654 AU
	1215 Nov 03 j 13:25	0° Y			1220 Dec 13 j 03:11	0° C	
asc. node	1215 Nov 27 j 16:17	6° Y 27'37					
	1216 Jan 16 j 02:15	0° B		conjunction	1220 Dec 17 j 09:47	3° C 17'18	0°-50'-15
	1216 Mar 07 j 20:09	0° II		minimum elong	1220 Dec 17 j 07:28	3° C 12'51	0°50'15
	1216 Apr 26 j 06:08	0° C			1221 Jan 20 j 16:36	0° \approx	
	1216 Jun 13 j 21:27	0° Q		morning rise	1221 Feb 20 j 20:05	24° \approx 30'56	
evening set	1216 Jul 31 j 20:47	0° M 08'25			1221 Feb 27 j 19:29	0° H	
	1216 Jul 31 j 15:30	0° M			1221 Apr 07 j 09:14	0° Y	
max. Earth dist.	1216 Aug 29 j 00:54	18° M 14'01	2.63855 AU		1221 May 17 j 06:49	0° B	
					1221 Jun 28 j 09:00	0° II	
conjunction	1216 Sep 15 j 13:46	29° M 41'15	0°47'47	asc. node	1221 Jul 19 j 12:58	14° II 19'30	
minimum elong	1216 Sep 15 j 14:57	29° M 43'12	0°47'46		1221 Aug 12 j 18:18	0° C	
	1216 Sep 16 j 01:10	0° L			1221 Oct 03 j 07:12	0° Q	
	1216 Oct 30 j 18:14	0° M		retrograde	1221 Dec 18 j 20:55	24° Q 56'20	

opposition	1222 Jan 27 j 23:12	15°♈16'18	4°33'36	asc. node	1227 Mar 11 j 10:38	25°♑21'05	
greatest brilliancy	1222 Jan 27 j 23:10	15°♈16'20	-1.2m		1227 Mar 17 j 21:49	0°♄	
min. Earth dist.	1222 Jan 28 j 05:30	15°♈10'01	0.67723 AU	evening set	1227 Apr 27 j 20:00	28°♄40'44	
direct	1222 Mar 09 j 20:03	5°♈26'19			1227 Apr 29 j 18:17	0°♂	
	1222 May 26 j 14:45	0°♐			1227 Jun 13 j 12:11	0°♄	
	1222 Jul 18 j 12:49	0°♊					
desc. node	1222 Aug 07 j 03:05	12°♊23'40		conjunction	1227 Jun 19 j 04:26	3°♄43'42	0°52'23
	1222 Sep 02 j 13:18	0°♌		minimum elong	1227 Jun 19 j 02:59	3°♄41'18	0°52'22
	1222 Oct 14 j 18:16	0°♍		max. Earth dist.	1227 Jul 05 j 08:45	14°♄16'14	2.63479 AU
	1222 Nov 23 j 12:15	0°♎			1227 Jul 29 j 19:05	0°♏	
evening set	1222 Dec 21 j 01:02	21°♎28'10		morning rise	1227 Aug 06 j 05:17	4°♏44'31	
	1222 Dec 31 j 20:52	0°♏			1227 Sep 15 j 03:17	0°♐	
	1223 Feb 07 j 20:15	0°♐			1227 Nov 02 j 07:08	0°♊	
					1227 Dec 21 j 18:50	0°♌	
conjunction	1223 Feb 26 j 09:42	14°♐32'47	0°-55'-38		1228 Feb 13 j 04:48	0°♍	
minimum elong	1223 Feb 26 j 12:36	14°♐38'27	0°55'37	desc. node	1228 Mar 28 j 23:12	19°♍53'03	
	1223 Mar 18 j 08:58	0°♑		retrograde	1228 May 03 j 15:28	26°♍37'12	
max. Earth dist.	1223 Apr 18 j 11:33	23°♑30'15	2.40957 AU	opposition	1228 Jun 04 j 19:53	20°♍46'09	-3°-46'-27
	1223 Apr 27 j 06:31	0°♒		greatest brilliancy	1228 Jun 06 j 05:02	20°♍20'33	-2.5m
morning rise	1223 May 05 j 11:58	6°♒01'08		min. Earth dist.	1228 Jun 12 j 06:48	18°♍29'01	0.42539 AU
asc. node	1223 Jun 06 j 13:05	28°♒52'08		direct	1228 Jul 09 j 12:54	13°♍47'44	
	1223 Jun 08 j 04:01	0°♂			1228 Aug 31 j 18:56	0°♎	
	1223 Jul 22 j 12:43	0°♄			1228 Oct 19 j 07:49	0°♏	
	1223 Sep 07 j 22:25	0°♏			1228 Dec 01 j 00:34	0°♐	
	1223 Oct 30 j 11:46	0°♐			1229 Jan 11 j 23:38	0°♑	
retrograde	1224 Jan 23 j 15:08	28°♐27'19		asc. node	1229 Jan 26 j 09:49	10°♑12'20	
opposition	1224 Mar 02 j 14:28	19°♐28'26	3°48'31		1229 Feb 23 j 18:56	0°♒	
greatest brilliancy	1224 Mar 03 j 07:54	19°♐11'27	-1.3m		1229 Apr 09 j 00:51	0°♂	
min. Earth dist.	1224 Mar 06 j 17:52	17°♐51'43	0.64799 AU		1229 May 24 j 18:04	0°♄	
direct	1224 Apr 13 j 01:10	9°♐27'00		evening set	1229 Jun 10 j 03:42	10°♄34'49	
	1224 Jun 19 j 13:58	0°♊			1229 Jul 10 j 12:03	0°♏	
desc. node	1224 Jun 24 j 01:36	2°♊18'17					
	1224 Aug 10 j 00:19	0°♌		conjunction	1229 Jul 27 j 10:26	10°♏47'15	1°09'05
	1224 Sep 22 j 17:23	0°♍		minimum elong	1229 Jul 27 j 10:17	10°♏47'01	1°09'05
	1224 Nov 01 j 23:16	0°♎		max. Earth dist.	1229 Jul 28 j 05:03	11°♏16'52	2.67427 AU
	1224 Dec 10 j 12:53	0°♏			1229 Aug 26 j 14:32	0°♐	
	1225 Jan 17 j 16:45	0°♐		morning rise	1229 Sep 10 j 06:04	9°♐20'52	
	1225 Feb 25 j 11:50	0°♑			1229 Oct 12 j 10:43	0°♊	
evening set	1225 Mar 01 j 03:37	2°♑46'45			1229 Nov 27 j 16:56	0°♌	
	1225 Apr 06 j 17:21	0°♒			1230 Jan 12 j 10:35	0°♍	
asc. node	1225 Apr 23 j 12:22	12°♒07'28		desc. node	1230 Feb 13 j 23:21	21°♍25'05	
					1230 Feb 27 j 01:15	0°♎	
conjunction	1225 May 02 j 00:57	18°♒11'11	0°05'23		1230 Apr 14 j 16:44	0°♏	
minimum elong	1225 May 02 j 00:36	18°♒10'34	0°05'23		1230 Jun 07 j 03:09	0°♐	
behind sun begin	1225 May 01 j 01:18	17°♒29'21		retrograde	1230 Jul 22 j 22:26	12°♐03'54	
behind sun end	1225 May 02 j 23:53	18°♒51'43		min. Earth dist.	1230 Aug 19 j 05:22	7°♐36'06	0.38028 AU
	1225 May 18 j 21:32	0°♂		greatest brilliancy	1230 Aug 22 j 08:07	6°♐44'25	-2.8m
max. Earth dist.	1225 Jun 06 j 09:44	12°♂42'30	2.54201 AU	opposition	1230 Aug 23 j 06:21	6°♐29'01	-6°-13'-23
morning rise	1225 Jun 26 j 16:15	26°♂20'09		direct	1230 Sep 21 j 19:14	1°♐27'24	
	1225 Jul 02 j 04:50	0°♄			1230 Dec 10 j 01:36	0°♑	
	1225 Aug 17 j 13:48	0°♏		asc. node	1230 Dec 14 j 08:38	2°♑25'38	
	1225 Oct 05 j 02:38	0°♐			1231 Jan 29 j 07:31	0°♒	
	1225 Nov 26 j 03:07	0°♊			1231 Mar 18 j 06:56	0°♂	
	1226 Jan 30 j 18:49	0°♌			1231 May 05 j 03:02	0°♄	
retrograde	1226 Mar 06 j 03:02	6°♌05'13			1231 Jun 22 j 00:11	0°♏	
	1226 Apr 06 j 20:20	30°♌♊		evening set	1231 Jul 18 j 11:07	16°♏40'00	
opposition	1226 Apr 11 j 15:27	28°♊16'32	1°22'14		1231 Aug 08 j 11:02	0°♐	
greatest brilliancy	1226 Apr 12 j 06:10	28°♊03'01	-1.8m	max. Earth dist.	1231 Aug 20 j 16:50	7°♐49'51	2.65927 AU
min. Earth dist.	1226 Apr 19 j 06:13	25°♊29'07	0.55544 AU				
desc. node	1226 May 12 j 00:30	19°♊28'30		conjunction	1231 Sep 02 j 00:58	15°♐46'46	0°58'36
direct	1226 May 21 j 16:34	18°♊50'44		minimum elong	1231 Sep 02 j 02:00	15°♐48'25	0°58'36
	1226 Jul 05 j 15:10	0°♌			1231 Sep 23 j 21:19	0°♊	
	1226 Aug 27 j 19:50	0°♍		morning rise	1231 Oct 16 j 20:01	15°♊10'13	
	1226 Oct 09 j 14:48	0°♎			1231 Nov 07 j 21:14	0°♌	
	1226 Nov 18 j 08:53	0°♏			1231 Dec 21 j 08:31	0°♐	
	1226 Dec 27 j 08:43	0°♐		desc. node	1232 Jan 01 j 22:35	8°♐10'09	
	1227 Feb 04 j 22:11	0°♑			1232 Feb 01 j 10:35	0°♎	

	1232 Mar 13 j 11:59	0°♊			1237 Apr 03 j 06:59	0°♎		
	1232 Apr 23 j 05:19	0°♋			1237 Jun 06 j 11:37	0°♍		
	1232 Jun 04 j 02:10	0°♌			1237 Jul 26 j 20:20	0°♊		
	1232 Jul 21 j 05:37	0°♍		desc. node	1237 Aug 23 j 18:52	18°♊10'55		
retrograde	1232 Sep 19 j 22:44	20°♍17'26			1237 Sep 10 j 04:32	0°♍		
min. Earth dist.	1232 Oct 19 j 05:46	14°♍23'10	0.49093 AU		1237 Oct 22 j 05:33	0°♌		
opposition	1232 Oct 27 j 07:03	11°♍26'34	0°-12'-41	evening set	1237 Nov 25 j 10:40	25°♌44'33		
greatest brilliancy	1232 Dec 11 j 11:58	5°♍02'58	-2.6m		1237 Nov 30 j 23:34	0°♌		
asc. node	1232 Oct 31 j 07:08	10°♍00'26			1238 Jan 08 j 09:14	0°♊		
direct	1232 Nov 30 j 01:58	4°♍14'25						
	1233 Feb 16 j 10:00	0°♋		conjunction	1238 Jan 28 j 07:47	15°♊45'05	-1°-4'-52	
	1233 Apr 11 j 21:49	0°♌		minimum elong	1238 Jan 28 j 08:05	15°♊45'40	1°04'53	
	1233 Jun 01 j 11:07	0°♎		max. Earth dist.	1238 Feb 08 j 16:47	24°♊44'01	2.37115 AU	
	1233 Jul 20 j 00:12	0°♍			1238 Feb 15 j 09:06	0°♋		
evening set	1233 Aug 23 j 21:14	22°♍19'38			1238 Mar 25 j 21:11	0°♌		
	1233 Sep 04 j 14:34	0°♊		morning rise	1238 Apr 08 j 20:17	10°♌39'23		
max. Earth dist.	1233 Sep 14 j 05:04	6°♊21'22	2.59138 AU		1238 May 04 j 17:29	0°♍		
					1238 Jun 15 j 14:43	0°♋		
conjunction	1233 Oct 09 j 17:33	23°♊33'39	0°23'29	asc. node	1238 Jun 23 j 04:25	5°♋14'22		
minimum elong	1233 Oct 09 j 18:25	23°♊35'07	0°23'28		1238 Jul 30 j 04:21	0°♌		
	1233 Oct 19 j 02:31	0°♍			1238 Sep 16 j 12:07	0°♎		
desc. node	1233 Nov 18 j 20:55	21°♍36'17			1238 Nov 12 j 07:09	0°♍		
morning rise	1233 Nov 27 j 08:14	27°♍40'46		retrograde	1239 Jan 09 j 07:05	15°♍25'16		
	1233 Nov 30 j 13:25	0°♌		opposition	1239 Feb 17 j 20:14	6°♍07'39	4°15'47	
	1234 Jan 10 j 06:30	0°♌		greatest brilliancy	1239 Feb 18 j 07:44	5°♍56'20	-1.3m	
	1234 Feb 18 j 18:06	0°♊		min. Earth dist.	1239 Feb 20 j 11:35	5°♍05'17	0.66727 AU	
	1234 Mar 29 j 16:48	0°♋			1239 Mar 06 j 13:52	30°♎♎		
	1234 May 08 j 00:50	0°♌		direct	1239 Mar 31 j 05:58	26°♎06'56		
	1234 Jun 18 j 00:48	0°♍			1239 Apr 26 j 20:33	0°♍		
	1234 Aug 01 j 23:32	0°♋			1239 Jul 02 j 18:52	0°♊		
asc. node	1234 Sep 18 j 06:59	25°♋24'04		desc. node	1239 Jul 11 j 17:20	5°♊11'00		
	1234 Sep 30 j 02:45	0°♌			1239 Aug 20 j 02:00	0°♍		
retrograde	1234 Nov 01 j 01:48	6°♌04'16			1239 Oct 01 j 23:44	0°♌		
	1234 Nov 30 j 23:21	30°♎♎			1239 Nov 10 j 22:49	0°♌		
min. Earth dist.	1234 Dec 05 j 17:08	28°♋10'47	0.60833 AU	greatest brilliancy	1239 Dec 10 j 05:26	22°♌47'42	1.2m	
opposition	1234 Dec 10 j 19:27	26°♋09'25	3°16'14		1239 Dec 19 j 09:08	0°♊		
greatest brilliancy	1234 Dec 09 j 22:36	26°♋30'08	-1.5m		1240 Jan 26 j 09:59	0°♋		
direct	1235 Jan 17 j 13:33	17°♋22'44		evening set	1240 Feb 02 j 23:11	5°♋55'21		
	1235 Mar 10 j 10:20	0°♌			1240 Mar 05 j 01:10	0°♌		
	1235 May 09 j 23:16	0°♎						
	1235 Jun 30 j 09:14	0°♍		conjunction	1240 Apr 08 j 21:14	26°♌10'32	0°-19'-46	
	1235 Aug 16 j 22:00	0°♊		minimum elong	1240 Apr 08 j 22:44	26°♌13'18	0°19'46	
	1235 Sep 30 j 10:55	0°♍			1240 Apr 14 j 02:09	0°♍		
evening set	1235 Oct 04 j 09:46	2°♍45'08		asc. node	1240 May 10 j 04:00	18°♍48'23		
desc. node	1235 Oct 06 j 19:35	4°♍26'14		max. Earth dist.	1240 May 22 j 19:18	27°♍42'29	2.49293 AU	
max. Earth dist.	1235 Oct 18 j 20:53	12°♍57'07	2.47770 AU		1240 May 26 j 02:08	0°♋		
	1235 Nov 11 j 10:59	0°♌		morning rise	1240 Jun 08 j 03:17	9°♋00'40		
					1240 Jul 09 j 07:51	0°♌		
conjunction	1235 Nov 25 j 18:33	10°♌35'08	0°-30'-11		1240 Aug 24 j 22:13	0°♎		
minimum elong	1235 Nov 25 j 16:59	10°♌32'14	0°30'10		1240 Oct 13 j 10:24	0°♍		
	1235 Dec 21 j 11:32	0°♌			1240 Dec 08 j 03:16	0°♊		
morning rise	1236 Jan 24 j 01:52	25°♌58'42		retrograde	1241 Feb 16 j 07:42	20°♊44'39		
	1236 Jan 29 j 05:27	0°♊		opposition	1241 Mar 25 j 23:57	12°♊23'56	2°34'11	
	1236 Mar 07 j 12:01	0°♋		greatest brilliancy	1241 Mar 26 j 20:31	12°♊04'28	-1.6m	
	1236 Apr 15 j 04:21	0°♌		min. Earth dist.	1241 Apr 01 j 09:11	9°♊59'08	0.59846 AU	
greatest brilliancy	1236 Apr 19 j 00:58	2°♌56'55	1.2m	direct	1241 May 05 j 21:35	2°♊35'43		
	1236 May 25 j 04:41	0°♍		desc. node	1241 May 28 j 15:54	5°♊41'13		
	1236 Jul 06 j 13:42	0°♋			1241 Jul 22 j 20:19	0°♍		
asc. node	1236 Aug 05 j 06:23	19°♋36'46			1241 Sep 07 j 18:20	0°♌		
	1236 Aug 21 j 23:00	0°♌			1241 Oct 19 j 01:47	0°♌		
	1236 Oct 17 j 12:24	0°♎			1241 Nov 27 j 04:02	0°♊		
retrograde	1236 Dec 05 j 13:01	12°♎06'54			1242 Jan 04 j 17:07	0°♋		
opposition	1237 Jan 14 j 18:33	2°♎16'56	4°29'29		1242 Feb 12 j 20:58	0°♌		
greatest brilliancy	1237 Jan 14 j 10:57	2°♎24'32	-1.3m		1242 Mar 25 j 11:26	0°♍		
min. Earth dist.	1237 Jan 13 j 12:24	2°♎47'06	0.67045 AU	asc. node	1242 Mar 28 j 03:12	1°♍55'02		
	1237 Jan 20 j 13:10	30°♎♌		evening set	1242 Apr 07 j 10:07	9°♍17'18		
direct	1237 Feb 24 j 00:31	22°♌39'08			1242 May 06 j 23:39	0°♋		

conjunction	1242 Jun 01 j 23:12	17°II40'15	0°37'48	retrograde	1247 Aug 31 j 14:21	27°Y10'52	
minimum elong	1242 Jun 01 j 21:39	17°II37'40	0°37'46	min. Earth dist.	1247 Sep 27 j 23:52	22°Y06'09	0.43908 AU
	1242 Jun 20 j 11:39	0°S		opposition	1247 Oct 05 j 23:26	19°Y24'58	-2°-28'-30
max. Earth dist.	1242 Jun 25 j 02:46	3°S03'07	2.60460 AU	greatest brilliancy	1247 Oct 04 j 23:40	19°Y45'03	-2.5m
morning rise	1242 Jul 22 j 07:52	20°S46'03		direct	1247 Nov 06 j 21:07	13°Y05'58	
	1242 Aug 05 j 17:13	0°Q		asc. node	1247 Nov 18 j 00:22	13°Y53'33	
	1242 Sep 22 j 08:44	0°M			1248 Jan 04 j 23:35	0°B	
	1242 Nov 10 j 12:37	0°A			1248 Mar 01 j 00:58	0°II	
	1243 Jan 01 j 19:24	0°M			1248 Apr 20 j 18:13	0°S	
	1243 Mar 10 j 02:57	0°J			1248 Jun 08 j 23:01	0°Q	
retrograde	1243 Apr 08 j 12:44	4°J37'29			1248 Jul 26 j 23:15	0°M	
desc. node	1243 Apr 15 j 15:50	4°J18'20		evening set	1248 Aug 09 j 04:02	8°M24'30	
	1243 May 06 j 03:02	30°RM		max. Earth dist.	1248 Sep 03 j 18:48	24°M58'29	2.62396 AU
opposition	1243 May 12 j 12:54	27°M55'04	-1°-24'-46		1248 Sep 11 j 10:45	0°A	
greatest brilliancy	1243 May 13 j 05:20	27°M41'11	-2.2m				
min. Earth dist.	1243 May 21 j 00:07	25°M03'53	0.47610 AU	conjunction	1248 Sep 24 j 03:03	8°A23'34	0°39'50
direct	1243 Jun 18 j 23:36	19°M40'48		minimum elong	1248 Sep 24 j 04:12	8°A25'29	0°39'50
	1243 Jul 30 j 14:42	0°J			1248 Oct 26 j 02:09	0°M	
	1243 Sep 20 j 15:38	0°S		morning rise	1248 Nov 09 j 15:42	10°M04'16	
	1243 Nov 02 j 01:58	0°≈		desc. node	1248 Dec 05 j 12:43	28°M19'32	
	1243 Dec 12 j 12:55	0°H			1248 Dec 07 j 20:54	0°J	
	1244 Jan 22 j 03:59	0°Y			1249 Jan 18 j 00:20	0°S	
asc. node	1244 Feb 13 j 00:50	15°Y48'46			1249 Feb 26 j 23:09	0°≈	
	1244 Mar 04 j 00:36	0°B			1249 Apr 07 j 09:16	0°H	
	1244 Apr 16 j 13:56	0°II			1249 May 17 j 06:44	0°Y	
evening set	1244 May 25 j 00:27	25°II32'58			1249 Jun 28 j 07:36	0°B	
	1244 May 31 j 19:47	0°S			1249 Aug 15 j 16:31	0°II	
				asc. node	1249 Oct 04 j 23:12	19°II10'08	
conjunction	1244 Jul 12 j 19:23	27°S06'46	1°06'02	retrograde	1249 Oct 16 j 21:56	20°II08'11	
minimum elong	1244 Jul 12 j 18:39	27°S05'35	1°06'01	min. Earth dist.	1249 Nov 18 j 12:56	12°II57'25	0.56766 AU
	1244 Jul 17 j 07:41	0°Q		greatest brilliancy	1249 Nov 24 j 05:02	10°II44'52	-1.8m
max. Earth dist.	1244 Jul 19 j 05:18	1°Q12'54	2.66535 AU	opposition	1249 Nov 25 j 00:29	10°II25'53	2°15'53
morning rise	1244 Aug 27 j 11:04	26°Q12'06		direct	1249 Dec 31 j 10:07	2°II09'35	
	1244 Sep 02 j 10:32	0°M			1250 Mar 25 j 09:42	0°S	
	1244 Oct 19 j 15:35	0°A			1250 May 18 j 23:38	0°Q	
	1244 Dec 05 j 19:16	0°M			1250 Jul 07 j 22:33	0°M	
	1245 Jan 22 j 07:11	0°J			1250 Aug 24 j 00:12	0°A	
desc. node	1245 Mar 02 j 15:01	24°J09'35		evening set	1250 Sep 17 j 08:56	16°A13'25	
	1245 Mar 12 j 11:16	0°S		max. Earth dist.	1250 Oct 03 j 10:54	27°A12'33	2.52673 AU
	1245 May 08 j 22:16	0°≈			1250 Oct 07 j 11:44	0°M	
retrograde	1245 Jun 21 j 13:05	10°≈19'08		desc. node	1250 Oct 23 j 11:24	11°M11'47	
opposition	1245 Jul 21 j 15:46	5°≈21'35	-6°-47'-42				
greatest brilliancy	1245 Jul 22 j 03:19	5°≈13'55	-2.9m	conjunction	1250 Nov 05 j 21:48	20°M46'43	0°-8'-14
min. Earth dist.	1245 Jul 23 j 02:22	4°≈58'35	0.37533 AU	minimum elong	1250 Nov 05 j 21:25	20°M46'01	0°08'15
direct	1245 Aug 20 j 22:20	0°≈16'25		behind sun begin	1250 Nov 05 j 02:25	20°M11'54	
	1245 Nov 07 j 14:38	0°H		behind sun end	1250 Nov 06 j 16:25	21°M20'11	
	1245 Dec 25 j 05:54	0°Y			1250 Nov 18 j 15:21	0°J	
asc. node	1245 Dec 31 j 00:01	3°Y45'45			1250 Dec 28 j 21:24	0°S	
	1246 Feb 08 j 21:36	0°B		morning rise	1250 Dec 29 j 22:46	0°S48'11	
	1246 Mar 26 j 20:40	0°II			1251 Feb 05 j 20:58	0°≈	
	1246 May 12 j 15:19	0°S			1251 Mar 16 j 08:17	0°H	
	1246 Jun 28 j 23:11	0°Q			1251 Apr 24 j 04:22	0°Y	
evening set	1246 Jul 03 j 23:11	3°Q09'50			1251 Jun 03 j 09:37	0°B	
max. Earth dist.	1246 Aug 11 j 13:15	27°Q39'34	2.67164 AU		1251 Jul 16 j 07:15	0°II	
	1246 Aug 15 j 05:15	0°M		asc. node	1251 Aug 22 j 21:42	23°II49'13	
					1251 Sep 02 j 13:52	0°S	
conjunction	1246 Aug 18 j 20:44	2°M19'44	1°05'41	retrograde	1251 Nov 23 j 02:54	28°S53'53	
minimum elong	1246 Aug 18 j 21:24	2°M20'48	1°05'41	min. Earth dist.	1251 Dec 30 j 12:59	20°S04'10	0.65380 AU
	1246 Sep 30 j 17:49	0°A		opposition	1252 Jan 02 j 07:24	18°S57'39	4°12'52
morning rise	1246 Oct 02 j 06:51	1°A00'24		greatest brilliancy	1252 Jan 01 j 17:02	19°S12'03	-1.3m
	1246 Nov 15 j 02:55	0°M		direct	1252 Feb 10 j 17:37	9°S35'58	
	1246 Dec 29 j 06:24	0°J			1252 Apr 20 j 13:40	0°Q	
desc. node	1247 Jan 18 j 13:49	14°J04'19			1252 Jun 15 j 17:49	0°M	
	1247 Feb 10 j 07:17	0°S			1252 Aug 03 j 15:12	0°A	
	1247 Mar 24 j 14:36	0°≈		desc. node	1252 Sep 09 j 10:16	24°A24'23	
	1247 May 06 j 02:15	0°H			1252 Sep 17 j 13:21	0°M	
	1247 Jun 20 j 14:30	0°Y			1252 Oct 29 j 13:02	0°J	

evening set	1252 Nov 02 j 19:04	3°♂08'12		morning rise	1257 Jul 06 j 10:31	5°♂54'08	
max. Earth dist.	1252 Nov 25 j 07:04	20°♂00'23	2.39968 AU		1257 Aug 12 j 17:58	0°♂	
	1252 Dec 08 j 08:56	0°♂			1257 Sep 29 j 20:50	0°♂	
					1257 Nov 19 j 13:06	0°♂	
conjunction	1252 Dec 31 j 16:55	18°♂05'47	0°-58'-57		1258 Jan 16 j 09:42	0°♂	
minimum elong	1252 Dec 31 j 14:53	18°♂01'49	0°58'58	retrograde	1258 Mar 17 j 08:07	16°♂02'39	
	1253 Jan 15 j 21:10	0°♂		opposition	1258 Apr 22 j 01:20	8°♂35'12	0°29'23
	1253 Feb 22 j 22:56	0°♂		greatest brilliancy	1258 Apr 22 j 07:32	8°♂29'39	-1.9m
morning rise	1253 Mar 09 j 23:51	11°♂47'28		min. Earth dist.	1258 Apr 30 j 04:00	5°♂40'55	0.52850 AU
	1253 Apr 02 j 11:34	0°♂		desc. node	1258 May 02 j 06:56	4°♂56'58	
	1253 May 12 j 07:43	0°♂			1258 May 22 j 16:08	30°♂♂	
	1253 Jun 23 j 06:28	0°♂		direct	1258 May 31 j 09:09	29°♂♂28'48	
asc. node	1253 Jul 09 j 21:18	11°♂22'05			1258 Jun 09 j 04:40	0°♂	
	1253 Aug 07 j 05:16	0°♂			1258 Aug 19 j 15:15	0°♂	
	1253 Sep 26 j 02:56	0°♂			1258 Oct 03 j 02:55	0°♂	
	1253 Dec 04 j 22:30	0°♂			1258 Nov 12 j 12:33	0°♂	
retrograde	1253 Dec 26 j 13:30	2°♂40'17			1258 Dec 21 j 21:34	0°♂	
	1254 Jan 15 j 20:09	30°♂♂			1259 Jan 30 j 17:39	0°♂	
opposition	1254 Feb 04 j 12:31	23°♂07'19	4°30'27	asc. node	1259 Mar 01 j 18:11	21°♂58'45	
greatest brilliancy	1254 Feb 04 j 16:47	23°♂03'05	-1.2m		1259 Mar 12 j 22:38	0°♂	
min. Earth dist.	1254 Feb 05 j 15:22	22°♂40'40	0.67654 AU		1259 Apr 24 j 23:22	0°♂	
direct	1254 Mar 17 j 15:35	13°♂12'10		evening set	1259 May 08 j 12:37	9°♂11'07	
	1254 May 18 j 00:47	0°♂			1259 Jun 08 j 20:05	0°♂	
	1254 Jul 12 j 17:08	0°♂					
desc. node	1254 Jul 28 j 10:01	9°♂41'35		conjunction	1259 Jun 28 j 10:27	12°♂47'22	0°58'42
	1254 Aug 28 j 09:43	0°♂		minimum elong	1259 Jun 28 j 09:12	12°♂45'21	0°58'41
	1254 Oct 09 j 20:13	0°♂		max. Earth dist.	1259 Jul 11 j 01:26	20°♂56'53	2.64789 AU
	1254 Nov 18 j 15:45	0°♂			1259 Jul 25 j 03:42	0°♂	
	1254 Dec 27 j 00:40	0°♂		morning rise	1259 Aug 14 j 11:09	12°♂57'13	
evening set	1255 Jan 05 j 16:24	7°♂37'44			1259 Sep 10 j 09:03	0°♂	
	1255 Feb 03 j 00:08	0°♂			1259 Oct 28 j 02:56	0°♂	
	1255 Mar 13 j 13:01	0°♂			1259 Dec 15 j 13:42	0°♂	
					1260 Feb 04 j 00:50	0°♂	
conjunction	1255 Mar 14 j 12:58	0°♂45'55	0°-44'-25	desc. node	1260 Mar 19 j 06:32	23°♂28'51	
minimum elong	1255 Mar 14 j 16:03	0°♂51'50	0°44'23		1260 Apr 02 j 21:17	0°♂	
	1255 Apr 22 j 10:57	0°♂		retrograde	1260 May 20 j 08:54	11°♂21'23	
max. Earth dist.	1255 May 04 j 10:00	8°♂43'32	2.43953 AU	opposition	1260 Jun 20 j 12:33	5°♂58'12	-5°-9'-1
morning rise	1255 May 18 j 23:44	19°♂11'06		greatest brilliancy	1260 Jun 21 j 22:23	5°♂33'49	-2.7m
asc. node	1255 May 27 j 19:37	25°♂25'39		min. Earth dist.	1260 Jun 26 j 13:37	4°♂14'15	0.40149 AU
	1255 Jun 03 j 08:20	0°♂			1260 Jul 17 j 23:34	30°♂♂	
	1255 Jul 17 j 14:24	0°♂		direct	1260 Jul 23 j 10:16	29°♂47'41	
	1255 Sep 02 j 14:21	0°♂			1260 Jul 28 j 21:47	0°♂	
	1255 Oct 23 j 16:03	0°♂			1260 Oct 09 j 03:45	0°♂	
	1255 Dec 27 j 07:42	0°♂			1260 Nov 23 j 12:22	0°♂	
retrograde	1256 Feb 01 j 05:20	6°♂36'25			1261 Jan 05 j 16:46	0°♂	
	1256 Mar 05 j 01:45	30°♂♂		asc. node	1261 Jan 16 j 16:57	7°♂38'43	
opposition	1256 Mar 10 j 19:26	27°♂49'43	3°25'49		1261 Feb 18 j 05:24	0°♂	
greatest brilliancy	1256 Mar 11 j 15:03	27°♂30'45	-1.4m		1261 Apr 03 j 22:38	0°♂	
min. Earth dist.	1256 Mar 15 j 18:40	25°♂54'39	0.63320 AU		1261 May 19 j 22:58	0°♂	
direct	1256 Apr 21 j 03:58	17°♂50'30		evening set	1261 Jun 19 j 00:05	19°♂15'20	
	1256 Jun 09 j 07:13	0°♂			1261 Jul 05 j 20:47	0°♂	
desc. node	1256 Jun 14 j 08:35	2°♂14'39		max. Earth dist.	1261 Aug 02 j 11:44	17°♂34'13	2.67558 AU
	1256 Aug 03 j 15:38	0°♂					
	1256 Sep 17 j 05:14	0°♂		conjunction	1261 Aug 04 j 16:03	18°♂57'28	1°08'58
	1256 Oct 27 j 18:29	0°♂		minimum elong	1261 Aug 04 j 16:13	18°♂57'44	1°08'58
	1256 Dec 05 j 11:36	0°♂			1261 Aug 21 j 23:59	0°♂	
	1257 Jan 12 j 17:46	0°♂		morning rise	1261 Sep 18 j 05:19	17°♂25'55	
	1257 Feb 20 j 14:41	0°♂			1261 Oct 07 j 16:53	0°♂	
evening set	1257 Mar 15 j 10:40	17°♂09'14			1261 Nov 22 j 14:43	0°♂	
	1257 Apr 01 j 22:03	0°♂			1262 Jan 06 j 16:33	0°♂	
asc. node	1257 Apr 13 j 18:30	8°♂34'00		desc. node	1262 Feb 04 j 05:51	19°♂14'04	
					1262 Feb 20 j 03:41	0°♂	
conjunction	1257 May 13 j 22:51	29°♂51'21	0°18'31		1262 Apr 05 j 15:15	0°♂	
minimum elong	1257 May 13 j 21:49	29°♂49'34	0°18'30		1262 May 22 j 06:40	0°♂	
	1257 May 14 j 03:51	0°♂		retrograde	1262 Aug 07 j 15:06	29°♂43'03	
max. Earth dist.	1257 Jun 13 j 17:21	20°♂50'01	2.56644 AU	min. Earth dist.	1262 Sep 03 j 04:24	25°♂13'08	0.39566 AU
	1257 Jun 27 j 11:34	0°♂		greatest brilliancy	1262 Sep 08 j 01:25	23°♂46'34	-2.7m

opposition	1262 Sep 09 j 07:48	23° ✕ 23'53	-5°-1'-42	desc. node	1267 Sep 27 j 02:59	0° ℓ 56'17	
direct	1262 Oct 09 j 13:19	18° ✕ 00'10		evening set	1267 Oct 14 j 18:05	13° ℓ 20'24	
	1262 Nov 25 j 19:48	0° Υ		max. Earth dist.	1267 Oct 29 j 13:19	23° ℓ 59'19	2.44941 AU
asc. node	1262 Dec 04 j 15:41	4° Υ 02'19			1267 Nov 06 j 18:57	0° ✕	
	1263 Jan 21 j 12:32	0° ✕					
	1263 Mar 12 j 07:10	0° Π		conjunction	1267 Dec 08 j 03:52	23° ✕ 26'46	0°-42'-8
	1263 Apr 29 j 22:23	0° ☿		minimum elong	1267 Dec 08 j 01:45	23° ✕ 22'46	0°42'07
	1263 Jun 17 j 05:02	0° ♂			1267 Dec 16 j 18:02	0° ☿	
evening set	1263 Jul 26 j 17:26	24° ♂ 50'45			1268 Jan 24 j 09:40	0° ≈	
	1263 Aug 03 j 20:08	0° ♊		greatest brilliancy	1268 Feb 04 j 21:38	9° ≈ 01'33	1.2m
max. Earth dist.	1263 Aug 26 j 04:01	14° ♊ 18'33	2.64879 AU	morning rise	1268 Feb 08 j 21:18	12° ≈ 09'35	
					1268 Mar 02 j 14:00	0° ✕	
conjunction	1263 Sep 10 j 07:41	24° ♊ 08'25	0°52'44		1268 Apr 10 j 04:05	0° Υ	
minimum elong	1263 Sep 10 j 08:49	24° ♊ 10'16	0°52'44		1268 May 20 j 01:26	0° ✕	
	1263 Sep 19 j 06:37	0° ♊			1268 Jul 01 j 04:33	0° Π	
morning rise	1263 Oct 25 j 13:32	24° ♊ 10'34		asc. node	1268 Jul 26 j 12:01	17° Π 00'05	
	1263 Nov 03 j 03:24	0° ℓ			1268 Aug 15 j 20:02	0° ☿	
	1263 Dec 16 j 08:27	0° ✕			1268 Oct 07 j 18:06	0° ♂	
desc. node	1263 Dec 23 j 04:05	4° ✕ 50'06		retrograde	1268 Dec 13 j 05:03	19° ♂ 58'54	
	1264 Jan 27 j 01:46	0° ☿		opposition	1269 Jan 22 j 09:17	10° ♂ 14'06	4°33'18
	1264 Mar 07 j 16:17	0° ≈		greatest brilliancy	1269 Jan 22 j 05:54	10° ♂ 17'29	-1.2m
	1264 Apr 16 j 19:54	0° ✕		min. Earth dist.	1269 Jan 21 j 23:43	10° ♂ 23'40	0.67555 AU
	1264 May 27 j 17:15	0° Υ		direct	1269 Mar 03 j 23:56	0° ♂ 28'56	
	1264 Jul 10 j 23:44	0° ✕			1269 May 30 j 15:42	0° ♊	
	1264 Sep 12 j 14:14	0° Π			1269 Jul 21 j 10:41	0° ♊	
retrograde	1264 Sep 30 j 06:51	2° Π 08'11		desc. node	1269 Aug 14 j 01:32	15° ♊ 07'17	
	1264 Oct 17 j 09:30	30° ♊			1269 Sep 05 j 05:27	0° ℓ	
asc. node	1264 Oct 21 j 15:29	28° ✕ 50'29			1269 Oct 17 j 10:08	0° ✕	
min. Earth dist.	1264 Oct 30 j 17:54	25° ✕ 45'59	0.51946 AU		1269 Nov 26 j 05:04	0° ☿	
opposition	1264 Nov 07 j 09:19	22° ✕ 53'31	0°50'11	evening set	1269 Dec 09 j 12:00	10° ☿ 18'00	
greatest brilliancy	1264 Nov 06 j 23:51	23° ✕ 02'25	-2.0m		1270 Jan 03 j 14:30	0° ≈	
direct	1264 Dec 12 j 04:48	15° ✕ 15'59			1270 Feb 10 j 13:58	0° ✕	
	1265 Feb 05 j 21:45	0° Π					
	1265 Apr 05 j 13:19	0° ☿		conjunction	1270 Feb 13 j 16:00	2° ✕ 25'41	-1°-1'-28
	1265 May 27 j 05:24	0° ♂		minimum elong	1270 Feb 13 j 18:02	2° ✕ 29'41	1°01'29
	1265 Jul 15 j 05:12	0° ♊			1270 Mar 21 j 01:37	0° Υ	
	1265 Aug 30 j 23:28	0° ♊		max. Earth dist.	1270 Mar 30 j 09:28	7° Υ 08'25	2.38774 AU
evening set	1265 Sep 01 j 12:48	1° ♊ 01'23		morning rise	1270 Apr 24 j 08:28	25° Υ 54'36	
max. Earth dist.	1265 Sep 20 j 17:34	13° ♊ 48'14	2.57005 AU		1270 Apr 29 j 21:16	0° ✕	
	1265 Oct 14 j 11:27	0° ℓ			1270 Jun 10 j 17:02	0° Π	
				asc. node	1270 Jun 13 j 11:55	1° Π 56'26	
conjunction	1265 Oct 19 j 03:34	3° ℓ 14'20	0°12'36		1270 Jul 25 j 01:36	0° ☿	
minimum elong	1265 Oct 19 j 04:05	3° ℓ 15'14	0°12'36		1270 Sep 10 j 17:25	0° ♂	
behind sun begin	1265 Oct 18 j 14:58	2° ℓ 52'28			1270 Nov 03 j 12:52	0° ♊	
behind sun end	1265 Oct 19 j 17:11	3° ℓ 38'00		retrograde	1271 Jan 17 j 09:45	23° ♊ 18'45	
desc. node	1265 Nov 09 j 03:39	18° ℓ 01'03		opposition	1271 Feb 25 j 16:12	14° ♊ 11'04	4°01'16
	1265 Nov 25 j 19:49	0° ✕		greatest brilliancy	1271 Feb 26 j 07:13	13° ♊ 56'22	-1.3m
morning rise	1265 Dec 08 j 08:52	9° ✕ 09'25		min. Earth dist.	1271 Mar 01 j 03:55	12° ♊ 49'08	0.65792 AU
	1266 Jan 05 j 08:49	0° ☿		direct	1271 Apr 08 j 03:31	4° ♊ 09'02	
	1266 Feb 13 j 15:41	0° ≈			1271 Jun 25 j 09:12	0° ♊	
	1266 Mar 24 j 09:42	0° ✕		desc. node	1271 Jul 01 j 23:56	3° ♊ 36'16	
	1266 May 02 j 12:13	0° Υ			1271 Aug 14 j 08:48	0° ℓ	
	1266 Jun 12 j 02:48	0° ✕			1271 Sep 26 j 18:22	0° ✕	
	1266 Jul 26 j 00:18	0° Π			1271 Nov 05 j 21:59	0° ☿	
asc. node	1266 Sep 08 j 14:11	26° Π 04'49			1271 Dec 14 j 10:19	0° ≈	
	1266 Sep 16 j 12:59	0° ☿			1272 Jan 21 j 12:38	0° ✕	
retrograde	1266 Nov 09 j 07:22	14° ☿ 57'31		evening set	1272 Feb 18 j 13:16	21° ✕ 49'00	
min. Earth dist.	1266 Dec 14 j 23:49	6° ☿ 42'24	0.62726 AU		1272 Feb 29 j 05:12	0° Υ	
greatest brilliancy	1266 Dec 18 j 10:45	5° ☿ 19'42	-1.5m		1272 Apr 09 j 07:27	0° ✕	
opposition	1266 Dec 19 j 06:08	5° ☿ 00'20	3°41'56				
	1267 Jan 01 j 20:10	30° ♊		conjunction	1272 Apr 22 j 08:58	9° ✕ 28'58	0°-5'-10
direct	1267 Jan 26 j 15:37	25° Π 59'38		minimum elong	1272 Apr 22 j 09:18	9° ✕ 29'35	0°05'10
	1267 Feb 22 j 20:20	0° ☿		behind sun begin	1272 Apr 21 j 09:01	8° ✕ 45'49	
	1267 May 03 j 09:00	0° ♂		behind sun end	1272 Apr 23 j 09:36	10° ✕ 13'17	
	1267 Jun 25 j 02:37	0° ♊		asc. node	1272 Apr 30 j 11:42	15° ✕ 18'02	
	1267 Aug 12 j 02:04	0° ♊			1272 May 21 j 08:25	0° Π	
	1267 Sep 25 j 18:33	0° ℓ		max. Earth dist.	1272 May 31 j 11:02	6° Π 59'42	2.52075 AU

morning rise	1272 Jun 18 j 23:05	19° Π 35'06		asc. node	1277 Dec 21 j 08:06	2° Υ 50'40	
	1272 Jul 04 j 13:21	0° \mathfrak{S}			1278 Feb 02 j 10:10	0° \mathfrak{B}	
	1272 Aug 19 j 23:00	0° Ω			1278 Mar 21 j 08:49	0° Π	
	1272 Oct 07 j 19:17	0° \mathfrak{M}			1278 May 07 j 15:59	0° \mathfrak{S}	
	1272 Nov 29 j 23:58	0° \mathfrak{A}			1278 Jun 24 j 06:39	0° Ω	
retrograde	1273 Feb 26 j 04:59	29° \mathfrak{A} 46'12		evening set	1278 Jul 12 j 07:09	11° Ω 22'17	
opposition	1273 Apr 04 j 06:36	21° \mathfrak{A} 42'19	1°55'09		1278 Aug 10 j 15:31	0° \mathfrak{M}	
greatest brilliancy	1273 Apr 05 j 00:48	21° \mathfrak{A} 25'21	-1.7m	max. Earth dist.	1278 Aug 16 j 20:42	3° \mathfrak{M} 58'16	2.66591 AU
min. Earth dist.	1273 Apr 11 j 08:52	19° \mathfrak{A} 03'48	0.57575 AU				
direct	1273 May 14 j 18:33	12° \mathfrak{A} 04'30		conjunction	1278 Aug 26 j 22:57	10° \mathfrak{M} 26'38	1°02'00
desc. node	1273 May 18 j 22:54	12° \mathfrak{A} 11'24		minimum elong	1278 Aug 26 j 23:51	10° \mathfrak{M} 28'04	1°02'00
	1273 Jul 13 j 10:13	0° \mathfrak{M}			1278 Sep 26 j 03:13	0° \mathfrak{A}	
	1273 Sep 01 j 04:53	0° \mathfrak{A}		morning rise	1278 Oct 10 j 12:28	9° \mathfrak{A} 26'53	
	1273 Oct 13 j 07:11	0° \mathfrak{Z}			1278 Nov 10 j 07:50	0° \mathfrak{M}	
	1273 Nov 21 j 17:38	0° \approx			1278 Dec 24 j 02:31	0° \mathfrak{A}	
	1273 Dec 30 j 11:57	0° \mathfrak{H}		desc. node	1279 Jan 08 j 20:59	11° \mathfrak{A} 02'07	
	1274 Feb 07 j 19:59	0° Υ			1279 Feb 04 j 14:27	0° \mathfrak{Z}	
asc. node	1274 Mar 18 j 09:46	28° Υ 25'42			1279 Mar 18 j 03:35	0° \approx	
	1274 Mar 20 j 14:05	0° \mathfrak{B}			1279 Apr 28 j 11:59	0° \mathfrak{H}	
evening set	1274 Apr 19 j 07:13	21° \mathfrak{B} 03'06			1279 Jun 10 j 10:28	0° Υ	
	1274 May 02 j 05:32	0° Π			1279 Jul 31 j 18:26	0° \mathfrak{B}	
				retrograde	1279 Sep 12 j 13:14	11° \mathfrak{B} 13'45	
conjunction	1274 Jun 11 j 23:33	27° Π 28'13	0°46'49	min. Earth dist.	1279 Oct 10 j 21:44	5° \mathfrak{B} 42'48	0.46749 AU
minimum elong	1274 Jun 11 j 22:00	27° Π 25'39	0°46'48	opposition	1279 Oct 19 j 02:56	2° \mathfrak{B} 48'26	-1°-6'-45
	1274 Jun 15 j 19:27	0° \mathfrak{S}		greatest brilliancy	1279 Oct 18 j 14:47	2° \mathfrak{B} 59'11	-2.3m
max. Earth dist.	1274 Jul 01 j 04:25	10° \mathfrak{S} 04'56	2.62233 AU		1279 Oct 27 j 12:04	30° \mathfrak{R} Υ	
morning rise	1274 Jul 30 j 23:11	29° \mathfrak{S} 19'05		asc. node	1279 Nov 08 j 06:30	27° Υ 05'57	
	1274 Aug 01 j 00:45	0° Ω		direct	1279 Nov 21 j 02:00	25° Υ 59'02	
	1274 Sep 17 j 11:10	0° \mathfrak{M}			1279 Dec 17 j 09:02	0° \mathfrak{B}	
	1274 Nov 04 j 23:45	0° \mathfrak{A}			1280 Feb 22 j 10:14	0° Π	
	1274 Dec 25 j 11:04	0° \mathfrak{M}			1280 Apr 15 j 00:36	0° \mathfrak{S}	
	1275 Feb 20 j 07:48	0° \mathfrak{A}			1280 Jun 03 j 22:54	0° Ω	
desc. node	1275 Apr 05 j 21:43	15° \mathfrak{A} 23'06			1280 Jul 22 j 06:43	0° \mathfrak{M}	
retrograde	1275 Apr 22 j 16:35	17° \mathfrak{A} 01'03		evening set	1280 Aug 17 j 12:45	16° \mathfrak{M} 45'27	
opposition	1275 May 25 j 17:13	10° \mathfrak{A} 46'23	-2°-42'-55		1280 Sep 06 j 20:33	0° \mathfrak{A}	
greatest brilliancy	1275 May 26 j 21:01	10° \mathfrak{A} 23'55	-2.4m	max. Earth dist.	1280 Sep 09 j 18:20	1° \mathfrak{A} 54'51	2.60698 AU
min. Earth dist.	1275 Jun 02 j 20:05	8° \mathfrak{A} 09'55	0.44748 AU				
direct	1275 Jun 30 j 17:29	3° \mathfrak{A} 11'23		conjunction	1280 Oct 02 j 21:35	17° \mathfrak{A} 20'57	0°30'46
	1275 Sep 10 j 18:56	0° \mathfrak{Z}		minimum elong	1280 Oct 02 j 22:36	17° \mathfrak{A} 22'40	0°30'46
	1275 Oct 25 j 17:53	0° \approx			1280 Oct 21 j 11:08	0° \mathfrak{M}	
	1275 Dec 06 j 05:39	0° \mathfrak{H}		morning rise	1280 Nov 19 j 11:03	20° \mathfrak{M} 15'29	
	1276 Jan 16 j 11:47	0° Υ		desc. node	1280 Nov 25 j 19:28	24° \mathfrak{M} 46'41	
asc. node	1276 Feb 03 j 08:43	12° Υ 48'04			1280 Dec 03 j 02:24	0° \mathfrak{A}	
	1276 Feb 27 j 18:43	0° \mathfrak{B}			1281 Jan 13 j 00:48	0° \mathfrak{Z}	
	1276 Apr 11 j 15:38	0° Π			1281 Feb 21 j 17:30	0° \approx	
	1276 May 27 j 02:28	0° \mathfrak{S}			1281 Apr 01 j 20:51	0° \mathfrak{H}	
evening set	1276 Jun 03 j 09:04	4° \mathfrak{S} 43'15			1281 May 11 j 09:23	0° Υ	
	1276 Jul 12 j 17:03	0° Ω			1281 Jun 21 j 16:30	0° \mathfrak{B}	
					1281 Aug 06 j 14:05	0° Π	
conjunction	1276 Jul 21 j 06:17	5° Ω 27'29	1°08'18	asc. node	1281 Sep 25 j 05:47	24° Π 14'56	
minimum elong	1276 Jul 21 j 05:53	5° Ω 26'51	1°08'18	retrograde	1281 Oct 25 j 18:26	29° Π 54'20	
max. Earth dist.	1276 Jul 24 j 12:47	7° Ω 32'35	2.67129 AU	min. Earth dist.	1281 Nov 28 j 12:35	22° Π 18'59	0.59116 AU
	1276 Aug 28 j 19:24	0° \mathfrak{M}		greatest brilliancy	1281 Dec 03 j 08:39	20° Π 24'34	-1.6m
morning rise	1276 Sep 04 j 09:21	4° \mathfrak{M} 11'27		opposition	1281 Dec 04 j 05:48	20° Π 03'40	2°53'51
	1276 Oct 14 j 19:13	0° \mathfrak{A}		direct	1282 Jan 10 j 09:46	11° Π 29'35	
	1276 Nov 30 j 10:20	0° \mathfrak{M}			1282 Mar 16 j 13:51	0° \mathfrak{S}	
	1277 Jan 15 j 20:23	0° \mathfrak{A}			1282 May 13 j 02:47	0° Ω	
desc. node	1277 Feb 20 j 21:28	23° \mathfrak{A} 08'35			1282 Jul 02 j 21:43	0° \mathfrak{M}	
	1277 Mar 03 j 16:53	0° \mathfrak{Z}			1282 Aug 19 j 06:39	0° \mathfrak{A}	
	1277 Apr 22 j 03:30	0° \approx		evening set	1282 Sep 26 j 21:23	25° \mathfrak{A} 53'16	
retrograde	1277 Jul 09 j 14:48	28° \approx 34'43			1282 Oct 02 j 20:17	0° \mathfrak{M}	
min. Earth dist.	1277 Aug 07 j 09:53	23° \approx 53'03	0.37409 AU	max. Earth dist.	1282 Oct 11 j 18:54	6° \mathfrak{M} 14'13	2.50019 AU
opposition	1277 Aug 09 j 03:53	23° \approx 24'59	-6°-46'-20	desc. node	1282 Oct 13 j 18:11	7° \mathfrak{M} 37'14	
greatest brilliancy	1277 Aug 08 j 19:04	23° \approx 30'53	-2.9m		1282 Nov 13 j 23:00	0° \mathfrak{A}	
direct	1277 Sep 07 j 15:54	18° \approx 30'13					
	1277 Oct 22 j 22:26	0° \mathfrak{H}		conjunction	1282 Nov 16 j 20:41	2° \mathfrak{A} 07'31	0°-20'-49
	1277 Dec 16 j 16:38	0° Υ		minimum elong	1282 Nov 16 j 19:38	2° \mathfrak{A} 05'36	0°20'50

	1282 Dec 24 j 02:52	0°☾		retrograde	1288 Feb 10 j 06:00	15°☾02'29	
morning rise	1283 Jan 12 j 15:19	14°☾58'41		opposition	1288 Mar 19 j 08:32	6°☾29'37	2°57'45
	1283 Jan 31 j 23:37	0°≈		greatest brilliancy	1288 Mar 20 j 05:10	6°☾09'54	-1.5m
	1283 Mar 11 j 08:12	0°☿		min. Earth dist.	1288 Mar 25 j 03:06	4°☾17'18	0.61507 AU
	1283 Apr 19 j 01:34	0°♀			1288 Apr 06 j 15:11	30°☿☿	
	1283 May 29 j 02:30	0°♂		direct	1288 Apr 29 j 12:05	26°☿35'12	
	1283 Jul 10 j 14:21	0°♂			1288 May 23 j 16:08	0°☾	
asc. node	1283 Aug 13 j 05:34	21°♂55'16		desc. node	1288 Jun 04 j 14:12	3°☾44'03	
	1283 Aug 26 j 12:08	0°☾			1288 Jul 27 j 13:05	0°♂	
	1283 Oct 26 j 02:25	0°♂			1288 Sep 11 j 08:37	0°♂	
retrograde	1283 Nov 30 j 21:06	7°♂00'54			1288 Oct 22 j 08:33	0°☾	
	1284 Jan 02 j 20:09	30°☿☾			1288 Nov 30 j 06:48	0°≈	
min. Earth dist.	1284 Jan 08 j 04:26	27°☾53'46	0.66422 AU		1289 Jan 07 j 16:27	0°☿	
opposition	1284 Jan 10 j 02:24	27°☾07'42	4°24'14		1289 Feb 15 j 16:26	0°♀	
greatest brilliancy	1284 Jan 09 j 15:40	27°☾18'28	-1.3m	evening set	1289 Mar 28 j 18:51	0°♂29'47	
direct	1284 Feb 18 j 23:45	17°☾36'30			1289 Mar 28 j 02:26	0°♂	
	1284 Apr 10 j 16:58	0°♂		asc. node	1289 Apr 04 j 02:43	5°♂04'14	
	1284 Jun 09 j 18:17	0°☿			1289 May 09 j 10:24	0°♂	
	1284 Jul 29 j 12:25	0°☾					
desc. node	1284 Aug 30 j 17:16	21°☾06'53		conjunction	1289 May 25 j 00:17	10°♂41'26	0°30'10
	1284 Sep 12 j 17:46	0°♂		minimum elong	1289 May 24 j 22:52	10°♂39'00	0°30'10
	1284 Oct 24 j 19:25	0°♂		max. Earth dist.	1289 Jun 20 j 09:41	28°♂25'01	2.58843 AU
evening set	1284 Nov 15 j 05:11	15°♂57'32			1289 Jun 22 j 19:01	0°☾	
	1284 Dec 03 j 15:09	0°☾		morning rise	1289 Jul 15 j 15:44	14°☾59'01	
max. Earth dist.	1284 Dec 21 j 21:45	14°☾09'59	2.37774 AU		1289 Aug 07 j 23:45	0°♂	
	1285 Jan 11 j 02:13	0°≈			1289 Sep 24 j 18:44	0°☿	
					1289 Nov 13 j 11:27	0°☾	
conjunction	1285 Jan 15 j 21:55	3°≈47'58	-1°-4'-2		1290 Jan 06 j 12:29	0°♂	
minimum elong	1285 Jan 15 j 20:57	3°≈46'05	1°04'03	retrograde	1290 Mar 29 j 11:12	26°♂41'34	
	1285 Feb 18 j 02:43	0°☿		desc. node	1290 Apr 22 j 14:14	23°♂04'32	
morning rise	1285 Mar 27 j 01:27	28°☿48'54		opposition	1290 May 03 j 06:21	19°♂37'54	0°-32'-18
	1285 Mar 28 j 14:24	0°♀		greatest brilliancy	1290 May 03 j 12:54	19°♂32'13	-2.1m
	1285 May 07 j 09:23	0°♂		min. Earth dist.	1290 May 11 j 16:00	16°♂42'34	0.49977 AU
	1285 Jun 18 j 05:38	0°♂		direct	1290 Jun 10 j 15:01	10°♂57'14	
asc. node	1285 Jun 30 j 04:00	8°♂13'54			1290 Aug 09 j 07:01	0°♂	
	1285 Aug 01 j 20:40	0°☾			1290 Sep 25 j 20:51	0°☾	
	1285 Sep 19 j 15:28	0°♂			1290 Nov 06 j 05:58	0°≈	
	1285 Nov 18 j 08:56	0°☿			1290 Dec 16 j 03:24	0°☿	
retrograde	1286 Jan 03 j 09:37	10°☿26'49			1291 Jan 25 j 08:30	0°♀	
opposition	1286 Feb 12 j 03:40	1°☿02'04	4°23'10	asc. node	1291 Feb 20 j 00:25	18°♀41'22	
greatest brilliancy	1286 Feb 12 j 12:05	0°☿53'45	-1.2m		1291 Mar 07 j 20:32	0°♂	
min. Earth dist.	1286 Feb 14 j 03:05	0°☿15'11	0.67268 AU		1291 Apr 20 j 02:53	0°♂	
	1286 Feb 14 j 18:28	30°☿♂		evening set	1291 May 18 j 16:30	19°♂09'29	
direct	1286 Mar 25 j 10:51	21°♂03'11			1291 Jun 04 j 03:26	0°☾	
	1286 May 06 j 19:03	0°☿					
	1286 Jul 06 j 10:29	0°☾		conjunction	1291 Jul 07 j 07:57	21°☾31'56	1°03'29
desc. node	1286 Jul 18 j 15:58	7°☾17'37		minimum elong	1291 Jul 07 j 06:59	21°☾30'23	1°03'28
	1286 Aug 23 j 01:44	0°♂		max. Earth dist.	1291 Jul 16 j 12:28	27°☾25'54	2.65863 AU
	1286 Oct 04 j 19:49	0°♂			1291 Jul 20 j 12:42	0°♂	
	1286 Nov 13 j 18:22	0°☾		morning rise	1291 Aug 22 j 12:30	21°♂01'28	
	1286 Dec 22 j 04:19	0°≈			1291 Sep 05 j 16:04	0°☿	
evening set	1287 Jan 21 j 13:56	24°≈00'51			1291 Oct 23 j 02:15	0°☾	
greatest brilliancy	1287 Jan 29 j 10:44	0°☿12'43	1.2m		1291 Dec 09 j 18:17	0°♂	
	1287 Jan 29 j 04:16	0°☿			1292 Jan 27 j 07:57	0°♂	
	1287 Mar 08 j 17:40	0°♀		desc. node	1292 Mar 09 j 13:40	24°♂42'41	
					1292 Mar 19 j 05:21	0°☾	
conjunction	1287 Mar 29 j 18:29	15°♀57'53	0°-30'-48	retrograde	1292 Jun 07 j 06:42	27°☾31'46	
minimum elong	1287 Mar 29 j 20:51	16°♀02'19	0°30'46	opposition	1292 Jul 07 j 13:43	22°☾28'47	-6°-16'-54
	1287 Apr 17 j 15:59	0°♂		greatest brilliancy	1292 Jul 08 j 15:04	22°☾11'30	-2.8m
max. Earth dist.	1287 May 16 j 04:18	20°♂35'20	2.46930 AU	min. Earth dist.	1292 Jul 11 j 08:49	21°☾26'45	0.38363 AU
asc. node	1287 May 18 j 03:07	21°♂58'19		direct	1292 Aug 07 j 21:23	17°☾00'03	
	1287 May 29 j 13:20	0°♂			1292 Sep 24 j 04:33	0°≈	
morning rise	1287 May 31 j 08:21	1°♂14'56			1292 Nov 14 j 17:42	0°☿	
	1287 Jul 12 j 17:29	0°☾			1292 Dec 29 j 20:34	0°♀	
	1287 Aug 28 j 09:59	0°♂		asc. node	1293 Jan 06 j 23:14	5°♀28'31	
	1287 Oct 17 j 09:59	0°☿			1293 Feb 12 j 09:16	0°♂	
	1287 Dec 14 j 12:43	0°☾			1293 Mar 29 j 16:52	0°♂	

	1293 May 15 j 02:02	0°☿			1297 Dec 31 j 13:29	0°♄		
evening set	1293 Jun 27 j 15:38	27°☿44'36			1298 Feb 08 j 16:37	0°♁		
	1293 Jul 01 j 04:59	0°♂			1298 Mar 19 j 06:36	0°♂		
max. Earth dist.	1293 Aug 07 j 17:10	23°♂49'24	2.67451 AU		1298 Apr 27 j 04:42	0°♂		
					1298 Jun 06 j 12:09	0°♂		
conjunction	1293 Aug 12 j 19:45	27°♂04'40	1°07'31		1298 Jul 19 j 16:10	0°♂		
minimum elong	1293 Aug 12 j 20:13	27°♂05'24	1°07'31	asc. node	1298 Aug 29 j 20:46	25°♂26'40		
	1293 Aug 17 j 09:43	0°♂			1298 Sep 07 j 02:37	0°☿		
morning rise	1293 Sep 26 j 05:38	25°♂35'49		retrograde	1298 Nov 17 j 08:10	23°☿30'59		
	1293 Oct 03 j 00:27	0°♂		min. Earth dist.	1298 Dec 24 j 00:00	14°☿55'52	0.64314 AU	
	1293 Nov 17 j 15:30	0°♂		opposition	1298 Dec 27 j 10:11	13°☿33'34	4°02'01	
	1294 Jan 01 j 04:37	0°♂		greatest brilliancy	1298 Dec 26 j 17:15	13°☿50'32	-1.4m	
desc. node	1294 Jan 25 j 12:15	16°♂39'26		direct	1299 Feb 04 j 09:29	4°☿20'35		
	1294 Feb 13 j 19:36	0°♄			1299 Apr 26 j 01:00	0°♂		
	1294 Mar 28 j 22:11	0°♁			1299 Jun 19 j 14:51	0°♂		
	1294 May 11 j 17:22	0°♂			1299 Aug 07 j 03:40	0°♂		
	1294 Jun 29 j 22:15	0°♂		desc. node	1299 Sep 17 j 08:42	27°♂28'00		
retrograde	1294 Aug 21 j 15:47	16°♂10'00			1299 Sep 21 j 00:48	0°♂		
min. Earth dist.	1294 Sep 17 j 11:42	11°♂24'09	0.41779 AU	evening set	1299 Oct 25 j 19:58	24°♂42'06		
opposition	1294 Sep 24 j 22:09	9°♂01'30	-3°-35'-4		1299 Nov 02 j 01:58	0°♂		
greatest brilliancy	1294 Sep 23 j 16:39	9°♂25'12	-2.6m	max. Earth dist.	1299 Nov 12 j 09:24	7°♂37'00	2.42124 AU	
direct	1294 Oct 26 j 00:00	3°♂08'03			1299 Dec 12 j 00:16	0°♄		
asc. node	1294 Nov 24 j 23:38	8°♂22'37						
	1295 Jan 12 j 06:47	0°♂		conjunction	1299 Dec 21 j 14:36	7°♄23'21	0°-52'-40	
	1295 Mar 05 j 21:27	0°♂		minimum elong	1299 Dec 21 j 12:18	7°♄18'55	0°52'39	
	1295 Apr 24 j 13:56	0°☿			1300 Jan 19 j 14:29	0°♁		
	1295 Jun 12 j 08:28	0°♂		morning rise	1300 Feb 25 j 15:10	29°♁08'41		
	1295 Jul 30 j 04:55	0°♂			1300 Feb 26 j 17:17	0°♂		
evening set	1295 Aug 03 j 23:50	3°♂02'38			1300 Apr 05 j 06:00	0°♂		
max. Earth dist.	1295 Aug 31 j 18:06	20°♂53'37	2.63613 AU		1300 May 15 j 01:28	0°♂		
	1295 Sep 14 j 16:41	0°♂			1300 Jun 26 j 00:07	0°♂		
				asc. node	1300 Jul 16 j 20:28	14°♂11'03		
conjunction	1295 Sep 18 j 17:17	2°♂38'55	0°45'40		1300 Aug 10 j 02:52	0°☿		
minimum elong	1295 Sep 18 j 18:27	2°♂40'51	0°45'40		1300 Sep 29 j 21:28	0°♂		
	1295 Oct 29 j 11:23	0°♂		retrograde	1300 Dec 20 j 20:55	27°♂44'38		
morning rise	1295 Nov 03 j 13:51	3°♂29'51		opposition	1301 Jan 29 j 22:35	18°♂06'03	4°33'00	
	1295 Dec 11 j 11:18	0°♂		greatest brilliancy	1301 Jan 29 j 23:30	18°♂05'08	-1.2m	
desc. node	1295 Dec 13 j 11:01	1°♂24'58		min. Earth dist.	1301 Jan 30 j 09:29	17°♂55'11	0.67734 AU	
	1296 Jan 21 j 21:18	0°♄		direct	1301 Mar 11 j 20:21	8°♂14'46		
	1296 Mar 02 j 02:55	0°♁			1301 May 22 j 22:38	0°♂		
	1296 Apr 10 j 19:51	0°♂			1301 Jul 15 j 19:32	0°♂		
	1296 May 21 j 01:31	0°♂		desc. node	1301 Aug 04 j 08:04	12°♂14'27		
	1296 Jul 02 j 18:09	0°♂			1301 Aug 31 j 03:55	0°♂		
	1296 Aug 23 j 00:52	0°♂			1301 Oct 12 j 12:59	0°♂		
retrograde	1296 Oct 10 j 00:24	13°♂07'06			1301 Nov 21 j 09:09	0°♄		
asc. node	1296 Oct 11 j 22:36	13°♂05'31		evening set	1301 Dec 24 j 13:57	25°♄54'12		
min. Earth dist.	1296 Nov 10 j 16:19	6°♂17'05	0.54689 AU		1301 Dec 29 j 18:38	0°♁		
opposition	1296 Nov 17 j 16:53	3°♂34'58	1°43'16		1302 Feb 05 j 17:50	0°♂		
greatest brilliancy	1296 Nov 17 j 00:13	3°♂51'02	-1.9m					
	1296 Nov 27 j 13:38	30°♂		conjunction	1302 Mar 02 j 03:52	19°♂07'21	0°-53'-11	
direct	1296 Dec 23 j 10:15	25°♂34'44		minimum elong	1302 Mar 02 j 06:55	19°♂13'17	0°53'11	
	1297 Jan 20 j 14:10	0°♂			1302 Mar 16 j 05:34	0°♂		
	1297 Mar 29 j 14:34	0°☿		max. Earth dist.	1302 Apr 22 j 16:38	28°♂15'19	2.41540 AU	
	1297 May 21 j 19:17	0°♂			1302 Apr 25 j 01:23	0°♂		
	1297 Jul 10 j 08:20	0°♂		morning rise	1302 May 08 j 18:20	10°♂00'48		
	1297 Aug 26 j 07:42	0°♂		asc. node	1302 Jun 03 j 19:06	28°♂33'36		
evening set	1297 Sep 10 j 10:56	10°♂00'48			1302 Jun 05 j 20:31	0°♂		
max. Earth dist.	1297 Sep 27 j 19:31	21°♂43'30	2.54698 AU		1302 Jul 20 j 01:53	0°☿		
	1297 Oct 09 j 20:45	0°♂			1302 Sep 05 j 05:54	0°♂		
					1302 Oct 27 j 03:45	0°♂		
conjunction	1297 Oct 29 j 00:38	13°♂24'40	0°00'52		1303 Jan 10 j 15:37	0°♂		
minimum elong	1297 Oct 29 j 00:40	13°♂24'43	0°00'52	retrograde	1303 Jan 25 j 18:21	1°♂19'02		
behind sun begin	1297 Oct 28 j 03:39	12°♂47'34			1303 Feb 09 j 04:28	30°♂		
behind sun end	1297 Oct 29 j 21:41	14°♂01'54		opposition	1303 Mar 05 j 16:17	22°♂22'29	3°42'08	
desc. node	1297 Oct 30 j 10:01	14°♂23'46		greatest brilliancy	1303 Mar 06 j 10:10	22°♂05'06	-1.3m	
	1297 Nov 21 j 03:30	0°♂		min. Earth dist.	1303 Mar 10 j 00:02	20°♂41'39	0.64553 AU	
morning rise	1297 Dec 20 j 04:14	21°♂25'52		direct	1303 Apr 16 j 02:47	12°♂20'59		

	1303 Jun 16 j 16:04	0°♄			1308 May 22 j 07:46	0°♄		
desc. node	1303 Jun 22 j 07:05	2°♄46'59		evening set	1308 Jun 12 j 10:32	13°♄36'31		
	1303 Aug 08 j 07:41	0°♄			1308 Jul 08 j 01:39	0°♄		
	1303 Sep 21 j 09:23	0°♄						
	1303 Oct 31 j 19:04	0°♄		conjunction	1308 Jul 29 j 14:02	13°♄42'18	1°09'10	
	1303 Dec 09 j 10:09	0°♄		minimum elong	1308 Jul 29 j 13:59	13°♄42'13	1°09'09	
	1304 Jan 16 j 14:03	0°♄		max. Earth dist.	1308 Jul 29 j 19:27	13°♄50'55	2.67467 AU	
	1304 Feb 24 j 08:07	0°♄			1308 Aug 24 j 04:09	0°♄		
evening set	1304 Mar 04 j 12:55	6°♄59'04		morning rise	1308 Sep 12 j 07:51	12°♄13'47		
	1304 Apr 04 j 11:56	0°♄			1308 Oct 10 j 00:13	0°♄		
asc. node	1304 Apr 20 j 17:36	11°♄44'57			1308 Nov 25 j 05:32	0°♄		
					1309 Jan 09 j 20:33	0°♄		
conjunction	1304 May 04 j 23:42	21°♄52'46	0°08'57	desc. node	1309 Feb 11 j 04:14	21°♄22'42		
minimum elong	1304 May 04 j 23:08	21°♄51'47	0°08'56		1309 Feb 24 j 05:27	0°♄		
behind sun begin	1304 May 04 j 02:48	21°♄15'57			1309 Apr 11 j 07:03	0°♄		
behind sun end	1304 May 05 j 19:29	22°♄27'35			1309 Jun 01 j 06:06	0°♄		
	1304 May 16 j 14:06	0°♄		retrograde	1309 Jul 26 j 15:00	16°♄48'24		
max. Earth dist.	1304 Jun 08 j 08:31	15°♄37'41	2.54694 AU	min. Earth dist.	1309 Aug 22 j 16:11	12°♄21'08	0.38241 AU	
morning rise	1304 Jun 29 j 04:06	29°♄34'58		greatest brilliancy	1309 Aug 26 j 03:15	11°♄23'07	-2.8m	
	1304 Jun 29 j 19:13	0°♄		opposition	1309 Aug 27 j 03:19	11°♄06'13	-5°-59'-28	
	1304 Aug 15 j 01:33	0°♄		direct	1309 Sep 25 j 19:33	6°♄01'30		
	1304 Oct 02 j 09:53	0°♄			1309 Dec 05 j 21:38	0°♄		
	1304 Nov 22 j 22:24	0°♄		asc. node	1309 Dec 11 j 15:02	3°♄07'19		
	1305 Jan 24 j 05:15	0°♄			1310 Jan 26 j 06:34	0°♄		
retrograde	1305 Mar 08 j 18:49	9°♄16'25			1310 Mar 15 j 13:56	0°♄		
opposition	1305 Apr 14 j 03:05	1°♄31'41	1°08'40		1310 May 02 j 13:19	0°♄		
greatest brilliancy	1305 Apr 14 j 15:51	1°♄20'00	-1.8m		1310 Jun 19 j 12:20	0°♄		
	1305 Apr 18 j 06:56	30°♄		evening set	1310 Jul 20 j 14:09	19°♄33'49		
min. Earth dist.	1305 Apr 21 j 19:32	28°♄43'04	0.55054 AU		1310 Aug 06 j 00:42	0°♄		
desc. node	1305 May 09 j 05:26	23°♄38'14		max. Earth dist.	1310 Aug 22 j 06:19	10°♄23'01	2.65746 AU	
direct	1305 May 24 j 00:44	22°♄08'52						
	1305 Jun 29 j 21:43	0°♄		conjunction	1310 Sep 04 j 03:46	18°♄42'00	0°57'03	
	1305 Aug 24 j 20:38	0°♄		minimum elong	1310 Sep 04 j 04:49	18°♄43'42	0°57'01	
	1305 Oct 07 j 03:35	0°♄			1310 Sep 21 j 12:19	0°♄		
	1305 Nov 16 j 02:07	0°♄		morning rise	1310 Oct 19 j 00:36	18°♄12'09		
	1305 Dec 25 j 03:28	0°♄			1310 Nov 05 j 13:12	0°♄		
	1306 Feb 02 j 16:54	0°♄			1310 Dec 19 j 00:51	0°♄		
asc. node	1306 Mar 08 j 17:10	25°♄00'36		desc. node	1310 Dec 30 j 02:28	7°♄48'10		
	1306 Mar 15 j 15:30	0°♄			1311 Jan 30 j 02:34	0°♄		
	1306 Apr 27 j 10:28	0°♄			1311 Mar 12 j 02:40	0°♄		
evening set	1306 Apr 30 j 11:56	2°♄05'40			1311 Apr 21 j 17:02	0°♄		
	1306 Jun 11 j 02:51	0°♄			1311 Jun 02 j 06:27	0°♄		
					1311 Jul 18 j 07:19	0°♄		
conjunction	1306 Jun 21 j 13:16	6°♄50'56	0°54'16	retrograde	1311 Sep 23 j 13:01	23°♄56'05		
minimum elong	1306 Jun 21 j 11:52	6°♄48'37	0°54'16	min. Earth dist.	1311 Oct 23 j 00:05	17°♄56'53	0.49637 AU	
max. Earth dist.	1306 Jul 07 j 01:12	16°♄55'45	2.63751 AU	asc. node	1311 Oct 29 j 14:29	15°♄31'37		
	1306 Jul 27 j 08:26	0°♄		opposition	1311 Oct 31 j 00:15	15°♄00'30	0°04'26	
morning rise	1306 Aug 08 j 08:52	7°♄40'36		greatest brilliancy	1312 Nov 04 j 06:15	12°♄49'46	-6.2m	
	1306 Sep 12 j 15:13	0°♄		direct	1311 Dec 04 j 01:08	7°♄43'15		
	1306 Oct 30 j 16:17	0°♄			1312 Feb 13 j 11:50	0°♄		
	1306 Dec 18 j 20:58	0°♄			1312 Apr 08 j 23:13	0°♄		
	1307 Feb 09 j 08:17	0°♄			1312 May 29 j 19:47	0°♄		
desc. node	1307 Mar 27 j 04:45	21°♄34'48			1312 Jul 17 j 12:48	0°♄		
	1307 Apr 27 j 23:46	0°♄		evening set	1312 Aug 26 j 00:52	25°♄16'37		
retrograde	1307 May 08 j 05:44	0°♄37'57			1312 Sep 02 j 06:02	0°♄		
	1307 May 18 j 08:24	30°♄		max. Earth dist.	1312 Sep 16 j 00:05	9°♄06'00	2.58738 AU	
opposition	1307 Jun 09 j 05:38	24°♄52'39	-4°-6'-18					
greatest brilliancy	1307 Jun 10 j 16:03	24°♄26'29	-2.5m	conjunction	1312 Oct 12 j 00:28	26°♄41'12	0°20'37	
min. Earth dist.	1307 Jun 16 j 12:36	22°♄40'37	0.42047 AU	minimum elong	1312 Oct 12 j 01:14	26°♄42'31	0°20'37	
direct	1307 Jul 13 j 13:42	18°♄03'43			1312 Oct 16 j 20:09	0°♄		
	1307 Aug 27 j 07:55	0°♄		desc. node	1312 Nov 16 j 01:53	21°♄11'48		
	1307 Oct 17 j 03:03	0°♄			1312 Nov 28 j 08:26	0°♄		
	1307 Nov 29 j 07:45	0°♄		morning rise	1312 Nov 29 j 22:12	1°♄08'13		
	1308 Jan 10 j 11:23	0°♄			1313 Jan 08 j 02:11	0°♄		
asc. node	1308 Jan 24 j 16:16	10°♄01'36			1313 Feb 16 j 13:44	0°♄		
	1308 Feb 22 j 08:24	0°♄			1313 Mar 27 j 11:33	0°♄		
	1308 Apr 06 j 14:42	0°♄			1313 May 05 j 17:31	0°♄		

	1313 Jun 15 j 13:01	0°♄			1318 Apr 15 j 11:16	0°♎		
	1313 Jul 30 j 00:14	0°♈			1318 Jun 29 j 14:41	0°♊		
asc. node	1313 Sep 15 j 13:28	26°♈20'44		desc. node	1318 Jul 08 j 22:21	5°♊18'26		
	1313 Sep 24 j 01:28	0°♄			1318 Aug 17 j 13:07	0°♍		
retrograde	1313 Nov 03 j 05:40	9°♄06'50			1318 Sep 29 j 16:59	0°♌		
min. Earth dist.	1313 Dec 08 j 01:41	1°♄08'34	0.61226 AU		1318 Nov 08 j 19:09	0°♐		
	1313 Dec 10 j 22:45	30°♈			1318 Dec 17 j 06:49	0°♑		
opposition	1313 Dec 12 j 23:26	29°♈11'29	3°24'17		1319 Jan 24 j 07:47	0°♒		
greatest brilliancy	1313 Dec 12 j 02:37	29°♈32'13	-1.5m	evening set	1319 Feb 06 j 11:36	10°♒18'41		
direct	1314 Jan 19 j 19:50	20°♈21'55			1319 Mar 03 j 22:10	0°♓		
	1314 Mar 05 j 04:07	0°♄			1319 Apr 12 j 21:34	0°♈		
	1314 May 06 j 21:11	0°♊						
	1314 Jun 27 j 18:05	0°♎		conjunction	1319 Apr 13 j 01:29	0°♈07'12	0°-16'-7	
	1314 Aug 14 j 12:21	0°♊		minimum elong	1319 Apr 13 j 02:42	0°♈09'25	0°16'07	
	1314 Sep 28 j 04:57	0°♍		asc. node	1319 May 08 j 11:02	18°♈28'42		
desc. node	1314 Oct 04 j 01:29	4°♍04'17			1319 May 24 j 19:22	0°♈		
evening set	1314 Oct 06 j 19:29	5°♍59'43		max. Earth dist.	1319 May 25 j 22:27	0°♈47'14	2.49826 AU	
max. Earth dist.	1314 Oct 21 j 04:36	16°♍10'19	2.47241 AU	morning rise	1319 Jun 11 j 19:17	12°♈25'20		
	1314 Nov 09 j 07:29	0°♌			1319 Jul 07 j 22:23	0°♄		
					1319 Aug 23 j 09:01	0°♊		
conjunction	1314 Nov 28 j 13:20	14°♌14'38	0°-33'-14		1319 Oct 11 j 14:04	0°♎		
minimum elong	1314 Nov 28 j 11:38	14°♌11'27	0°33'15		1319 Dec 05 j 06:54	0°♊		
	1314 Dec 19 j 09:25	0°♐		retrograde	1320 Feb 19 j 16:50	23°♊45'28		
morning rise	1315 Jan 27 j 12:49	0°♑17'57		opposition	1320 Mar 28 j 06:06	15°♊27'53	2°23'44	
	1315 Jan 27 j 03:38	0°♑		greatest brilliancy	1320 Mar 29 j 02:03	15°♊09'02	-1.6m	
	1315 Mar 06 j 09:32	0°♒		min. Earth dist.	1320 Apr 03 j 18:28	13°♊00'18	0.59447 AU	
greatest brilliancy	1315 Mar 29 j 13:32	18°♒04'37	1.2m	direct	1320 May 08 j 02:01	5°♊40'56		
	1315 Apr 14 j 00:16	0°♓		desc. node	1320 May 25 j 21:21	7°♊37'43		
	1315 May 23 j 21:54	0°♈			1320 Jul 19 j 09:19	0°♍		
	1315 Jul 05 j 02:26	0°♈			1320 Sep 05 j 04:08	0°♌		
asc. node	1315 Aug 03 j 11:23	19°♈32'34			1320 Oct 16 j 18:18	0°♐		
	1315 Aug 20 j 02:20	0°♄			1320 Nov 24 j 23:14	0°♑		
	1315 Oct 13 j 23:48	0°♊			1321 Jan 02 j 13:01	0°♒		
retrograde	1315 Dec 08 j 13:52	14°♊57'32			1321 Feb 10 j 16:23	0°♓		
opposition	1316 Jan 17 j 18:35	5°♊08'34	4°31'03		1321 Mar 23 j 05:38	0°♈		
greatest brilliancy	1316 Jan 17 j 11:53	5°♊15'17	-1.2m	asc. node	1321 Mar 25 j 09:17	1°♈33'21		
min. Earth dist.	1316 Jan 16 j 16:59	5°♊34'11	0.67182 AU	evening set	1321 Apr 10 j 07:18	12°♈56'51		
	1316 Jan 31 j 11:07	30°♈			1321 May 04 j 16:14	0°♈		
direct	1316 Feb 27 j 01:33	25°♄29'06						
	1316 Mar 27 j 07:28	0°♊		conjunction	1321 Jun 04 j 11:16	20°♈55'40	0°40'22	
	1316 Jun 03 j 08:18	0°♎		minimum elong	1321 Jun 04 j 09:41	20°♈53'01	0°40'21	
	1316 Jul 24 j 06:23	0°♊			1321 Jun 18 j 02:32	0°♄		
desc. node	1316 Aug 20 j 23:57	17°♊55'48		max. Earth dist.	1321 Jun 26 j 17:06	5°♄40'25	2.60815 AU	
	1316 Sep 07 j 20:43	0°♍		morning rise	1321 Jul 24 j 12:52	23°♄45'31		
	1316 Oct 20 j 01:21	0°♌			1321 Aug 03 j 06:18	0°♊		
evening set	1316 Nov 28 j 12:15	29°♌42'07			1321 Sep 19 j 19:17	0°♎		
	1316 Nov 28 j 21:33	0°♐			1321 Nov 07 j 18:01	0°♊		
	1317 Jan 06 j 08:09	0°♑			1321 Dec 29 j 10:19	0°♍		
					1322 Mar 02 j 05:33	0°♌		
conjunction	1317 Jan 31 j 21:25	20°♑11'09	-1°-4'-31	retrograde	1322 Apr 11 j 14:51	8°♌14'21		
minimum elong	1317 Jan 31 j 22:10	20°♑12'38	1°04'32	desc. node	1322 Apr 12 j 20:17	8°♌13'47		
	1317 Feb 13 j 07:49	0°♒		opposition	1322 May 15 j 11:33	1°♌36'37	-1°-43'-25	
max. Earth dist.	1317 Feb 21 j 05:35	6°♒13'18	2.37236 AU	greatest brilliancy	1322 May 16 j 06:59	1°♌20'18	-2.2m	
	1317 Mar 23 j 18:41	0°♓			1322 May 20 j 06:15	30°♍		
morning rise	1317 Apr 12 j 10:01	14°♓58'41		min. Earth dist.	1322 May 23 j 21:19	28°♍48'01	0.47081 AU	
	1317 May 02 j 12:50	0°♈		direct	1322 Jun 21 j 15:15	23°♍29'07		
	1317 Jun 13 j 07:00	0°♈			1322 Jul 23 j 23:17	0°♌		
asc. node	1317 Jun 20 j 11:07	4°♈58'55			1322 Sep 17 j 11:36	0°♐		
	1317 Jul 27 j 16:11	0°♄			1322 Oct 30 j 11:22	0°♑		
	1317 Sep 13 j 15:28	0°♊			1322 Dec 10 j 03:01	0°♒		
	1317 Nov 08 j 02:47	0°♎			1323 Jan 19 j 19:39	0°♓		
retrograde	1318 Jan 11 j 08:54	18°♎15'22		asc. node	1323 Feb 10 j 08:01	15°♓33'18		
opposition	1318 Feb 19 j 20:57	8°♎59'40	4°11'44		1323 Mar 02 j 16:19	0°♈		
greatest brilliancy	1318 Feb 20 j 09:13	8°♎47'36	-1.3m		1323 Apr 15 j 04:59	0°♈		
min. Earth dist.	1318 Feb 22 j 16:38	7°♎53'04	0.66583 AU	evening set	1323 May 28 j 08:41	28°♈39'20		
	1318 Mar 20 j 15:15	30°♎			1323 May 30 j 10:04	0°♄		
direct	1318 Apr 02 j 06:50	28°♎58'18						

conjunction	1323 Jul 15 j 23:04	0°Ω02'39	1°06'47			1328 Aug 11 j 22:00	0°Π	
minimum elong	1323 Jul 15 j 22:26	0°Ω01'39	1°06'47	asc. node		1328 Oct 02 j 04:40	21°Π29'30	
	1323 Jul 15 j 21:24	0°Ω		retrograde		1328 Oct 19 j 05:39	23°Π23'59	
max. Earth dist.	1323 Jul 21 j 21:31	3°Ω50'14	2.66667 AU	min. Earth dist.		1328 Nov 21 j 01:37	16°Π07'51	0.57229 AU
morning rise	1323 Aug 30 j 11:56	29°Ω03'01		opposition		1328 Nov 27 j 09:04	13°Π39'43	2°27'25
	1323 Aug 31 j 23:48	0°Π		greatest brilliancy		1328 Nov 26 j 12:41	13°Π59'43	-1.7m
	1323 Oct 18 j 03:52	0°Δ		direct		1329 Jan 02 j 21:48	5°Π19'42	
	1323 Dec 04 j 04:53	0°Μ				1329 Mar 21 j 16:52	0°Φ	
	1324 Jan 20 j 10:29	0°♂				1329 May 16 j 03:02	0°Ω	
desc. node	1324 Feb 28 j 19:38	24°♂28'44				1329 Jul 05 j 09:09	0°Π	
	1324 Mar 08 j 22:49	0°♂				1329 Aug 21 j 15:02	0°Δ	
	1324 May 02 j 09:34	0°≈		evening set		1329 Sep 19 j 15:58	19°Δ20'10	
retrograde	1324 Jun 25 j 13:40	15°≈08'39				1329 Oct 05 j 05:34	0°Μ	
opposition	1324 Jul 25 j 18:25	10°≈10'09	-6°-51'-32	max. Earth dist.		1329 Oct 05 j 12:35	0°Μ12'08	2.52182 AU
greatest brilliancy	1324 Jul 26 j 01:50	10°≈05'13	-2.9m	desc. node		1329 Oct 20 j 16:47	10°Μ48'16	
min. Earth dist.	1324 Jul 26 j 13:00	9°≈57'48	0.37444 AU					
direct	1324 Aug 24 j 19:15	5°≈08'31		conjunction		1329 Nov 08 j 10:39	24°Μ10'51	0°-11'-28
	1324 Nov 03 j 09:33	0°♂		minimum elong		1329 Nov 08 j 10:05	24°Μ09'51	0°11'29
	1324 Dec 22 j 04:50	0°Υ		behind sun begin		1329 Nov 07 j 18:20	23°Μ41'27	
asc. node	1324 Dec 28 j 07:35	3°Υ57'07		behind sun end		1329 Nov 09 j 01:51	24°Μ38'16	
	1325 Feb 06 j 05:11	0°♂				1329 Nov 16 j 11:16	0°♂	
	1325 Mar 24 j 07:35	0°Π				1329 Dec 26 j 18:36	0°♂	
	1325 May 10 j 03:37	0°Φ		morning rise		1330 Jan 01 j 23:09	4°♂42'29	
	1325 Jun 26 j 12:24	0°Ω				1330 Feb 03 j 18:40	0°≈	
evening set	1325 Jul 06 j 01:49	6°Ω02'40				1330 Mar 14 j 05:36	0°♂	
	1325 Aug 12 j 19:26	0°Π				1330 Apr 22 j 00:16	0°Υ	
max. Earth dist.	1325 Aug 12 j 23:45	0°Π06'53	2.67083 AU			1330 Jun 01 j 02:35	0°♂	
						1330 Jul 13 j 18:17	0°Π	
conjunction	1325 Aug 20 j 21:44	5°Π10'20	1°04'45	asc. node		1330 Aug 20 j 04:40	23°Π59'04	
minimum elong	1325 Aug 20 j 22:27	5°Π11'30	1°04'45			1330 Aug 30 j 09:15	0°Φ	
	1325 Sep 28 j 08:58	0°Δ				1330 Nov 08 j 00:18	0°Ω	
morning rise	1325 Oct 04 j 08:09	3°Δ53'45		retrograde		1330 Nov 25 j 04:45	1°Ω48'06	
	1325 Nov 12 j 18:34	0°Μ				1330 Dec 11 j 10:37	30°RΦ	
	1325 Dec 26 j 21:36	0°♂		min. Earth dist.		1331 Jan 01 j 18:27	22°Φ54'37	0.65600 AU
desc. node	1326 Jan 15 j 19:18	13°♂48'27		opposition		1331 Jan 04 j 08:31	21°Φ52'21	4°16'50
	1326 Feb 07 j 20:45	0°♂		greatest brilliancy		1331 Jan 03 j 18:47	22°Φ06'08	-1.3m
	1326 Mar 22 j 00:27	0°≈		direct		1331 Feb 12 j 20:00	12°Φ28'44	
	1326 May 03 j 04:35	0°♂				1331 Apr 17 j 11:42	0°Ω	
	1326 Jun 16 j 19:22	0°Υ				1331 Jun 13 j 20:55	0°Π	
	1326 Aug 20 j 18:44	0°♂				1331 Aug 02 j 03:23	0°Δ	
retrograde	1326 Sep 03 j 12:39	1°♂20'50		desc. node		1331 Sep 07 j 15:32	24°Δ05'30	
	1326 Sep 17 j 03:01	30°RΥ				1331 Sep 16 j 06:29	0°Μ	
min. Earth dist.	1326 Oct 01 j 01:03	26°Υ12'13	0.44443 AU			1331 Oct 28 j 09:13	0°♂	
greatest brilliancy	1326 Oct 08 j 06:48	23°Υ44'47	-2.4m	evening set		1331 Nov 06 j 14:05	6°♂47'48	
opposition	1326 Oct 09 j 04:02	23°Υ26'42	-2°-7'-23	max. Earth dist.		1331 Nov 30 j 12:11	24°♂48'44	2.39494 AU
direct	1326 Nov 10 j 06:21	17°Υ01'45				1331 Dec 07 j 06:50	0°♂	
asc. node	1326 Nov 15 j 05:57	17°Υ11'24						
	1326 Dec 30 j 19:50	0°♂		conjunction		1332 Jan 05 j 00:35	22°♂18'39	-1°00'-32
	1327 Feb 26 j 20:31	0°Π		minimum elong		1332 Jan 04 j 22:44	22°♂15'02	1°00'32
	1327 Apr 19 j 00:17	0°Φ				1332 Jan 14 j 19:42	0°≈	
	1327 Jun 07 j 09:36	0°Ω				1332 Feb 21 j 21:06	0°♂	
	1327 Jul 25 j 12:41	0°Π		morning rise		1332 Mar 13 j 19:44	16°♂24'47	
evening set	1327 Aug 12 j 06:36	11°Π17'58				1332 Mar 31 j 08:33	0°Υ	
max. Earth dist.	1327 Sep 06 j 13:12	27°Π40'11	2.62107 AU			1332 May 10 j 02:39	0°♂	
	1327 Sep 10 j 02:30	0°Δ				1332 Jun 20 j 22:14	0°Π	
				asc. node		1332 Jul 07 j 03:36	11°Π08'52	
conjunction	1327 Sep 27 j 06:48	11°Δ22'23	0°37'26			1332 Aug 04 j 15:37	0°Φ	
minimum elong	1327 Sep 27 j 07:55	11°Δ24'15	0°37'25			1332 Sep 23 j 00:11	0°Ω	
	1327 Oct 24 j 19:49	0°Μ				1332 Nov 26 j 15:11	0°Π	
morning rise	1327 Nov 12 j 23:22	13°Μ15'08		retrograde		1332 Dec 28 j 15:12	5°Π29'40	
desc. node	1327 Dec 03 j 17:57	27°Μ55'08				1333 Jan 26 j 23:12	30°RΩ	
	1327 Dec 06 j 15:53	0°♂		opposition		1333 Feb 06 j 12:36	25°Ω58'26	4°28'35
	1328 Jan 16 j 19:55	0°♂		greatest brilliancy		1333 Feb 06 j 17:45	25°Ω53'19	-1.2m
	1328 Feb 25 j 18:31	0°≈		min. Earth dist.		1333 Feb 07 j 19:46	25°Ω27'28	0.67601 AU
	1328 Apr 05 j 03:16	0°♂		direct		1333 Mar 19 j 15:34	16°Ω02'24	
	1328 May 14 j 21:27	0°Υ				1333 May 13 j 15:17	0°Π	
	1328 Jun 25 j 14:41	0°♂				1333 Jul 09 j 20:33	0°Δ	

desc. node	1333 Jul 25 j 14:15	9°♄36'13		max. Earth dist.	1338 Jul 12 j 15:38	23°♄32'08	2.65029 AU
	1333 Aug 25 j 23:17	0°♌			1338 Jul 22 j 17:12	0°♌	
	1333 Oct 07 j 14:52	0°♏		morning rise	1338 Aug 16 j 12:50	15°♌49'52	
	1333 Nov 16 j 13:12	0°♐			1338 Sep 07 j 21:31	0°♍	
	1333 Dec 24 j 23:20	0°♑			1338 Oct 25 j 13:28	0°♎	
evening set	1334 Jan 09 j 04:42	12°♑01'48			1338 Dec 12 j 19:29	0°♏	
	1334 Jan 31 j 22:43	0°♐			1339 Jan 31 j 17:44	0°♏	
	1334 Mar 11 j 10:29	0°♑		desc. node	1339 Mar 17 j 11:53	24°♏26'57	
					1339 Mar 29 j 02:08	0°♐	
conjunction	1334 Mar 18 j 00:59	5°♑03'34	0°-41'-17	retrograde	1339 May 25 j 06:52	15°♐36'48	
minimum elong	1334 Mar 18 j 03:59	5°♑09'18	0°41'16	opposition	1339 Jun 25 j 03:53	10°♐18'25	-5°-26'-21
	1334 Apr 20 j 06:31	0°♒		greatest brilliancy	1339 Jun 26 j 13:33	9°♐54'26	-2.7m
max. Earth dist.	1334 May 07 j 05:04	12°♒21'06	2.44503 AU	min. Earth dist.	1339 Jun 30 j 20:59	8°♐41'04	0.39744 AU
morning rise	1334 May 21 j 23:16	22°♒54'04		direct	1339 Jul 27 j 19:26	4°♐16'20	
asc. node	1334 May 25 j 02:10	25°♒06'25			1339 Oct 06 j 03:41	0°♑	
	1334 Jun 01 j 01:22	0°♒			1339 Nov 21 j 12:35	0°♐	
	1334 Jul 15 j 04:16	0°♑			1340 Jan 04 j 00:37	0°♑	
	1334 Aug 30 j 23:22	0°♌		asc. node	1340 Jan 14 j 22:16	7°♑32'31	
	1334 Oct 20 j 13:47	0°♍			1340 Feb 16 j 16:17	0°♒	
	1334 Dec 21 j 06:27	0°♎			1340 Apr 01 j 10:41	0°♒	
retrograde	1335 Feb 03 j 11:57	9°♎32'29			1340 May 17 j 11:31	0°♑	
opposition	1335 Mar 13 j 23:20	0°♎48'34	3°18'03	evening set	1340 Jun 21 j 06:06	22°♑15'45	
greatest brilliancy	1335 Mar 14 j 19:08	0°♎29'29	-1.4m		1340 Jul 03 j 09:45	0°♌	
	1335 Mar 16 j 01:39	30°♒♍		max. Earth dist.	1340 Aug 04 j 00:21	20°♌05'53	2.67568 AU
min. Earth dist.	1335 Mar 19 j 02:28	28°♒49'52	0.62982 AU				
direct	1335 Apr 24 j 06:30	20°♒49'55		conjunction	1340 Aug 06 j 18:57	21°♌51'50	1°08'40
	1335 Jun 05 j 01:24	0°♎		minimum elong	1340 Aug 06 j 19:13	21°♌52'15	1°08'40
desc. node	1335 Jun 12 j 12:37	3°♎44'35			1340 Aug 19 j 13:27	0°♍	
	1335 Aug 01 j 17:19	0°♌		morning rise	1340 Sep 20 j 06:35	20°♍18'54	
	1335 Sep 15 j 18:23	0°♏			1340 Oct 05 j 06:40	0°♎	
	1335 Oct 26 j 12:31	0°♐			1340 Nov 20 j 04:05	0°♏	
	1335 Dec 04 j 07:52	0°♑			1341 Jan 04 j 04:17	0°♏	
	1336 Jan 11 j 14:40	0°♐		desc. node	1341 Feb 01 j 10:32	19°♏05'34	
	1336 Feb 19 j 11:06	0°♑			1341 Feb 17 j 11:46	0°♐	
evening set	1336 Mar 18 j 14:04	21°♑05'52			1341 Apr 02 j 15:43	0°♑	
	1336 Mar 30 j 17:08	0°♒			1341 May 18 j 10:21	0°♐	
asc. node	1336 Apr 11 j 01:55	8°♒13'56			1341 Jul 16 j 13:15	0°♑	
	1336 May 11 j 21:02	0°♒		retrograde	1341 Aug 10 j 20:47	4°♑15'29	
					1341 Sep 05 j 12:51	30°♒♐	
conjunction	1336 May 16 j 15:28	3°♒18'11	0°21'40	min. Earth dist.	1341 Sep 06 j 11:51	29°♐43'10	0.39925 AU
minimum elong	1336 May 16 j 14:17	3°♒16'09	0°21'40	opposition	1341 Sep 12 j 21:53	27°♐46'57	-4°-42'-29
max. Earth dist.	1336 Jun 15 j 11:10	23°♒34'31	2.57071 AU	greatest brilliancy	1341 Sep 11 j 15:17	28°♐10'11	-2.7m
	1336 Jun 25 j 02:38	0°♑		direct	1341 Oct 13 j 06:28	22°♐17'59	
morning rise	1336 Jul 08 j 18:03	8°♑59'25			1341 Nov 19 j 01:33	0°♑	
	1336 Aug 10 j 06:38	0°♌		asc. node	1341 Dec 01 j 22:37	5°♑18'39	
	1336 Sep 27 j 05:52	0°♍			1342 Jan 18 j 02:42	0°♒	
	1336 Nov 16 j 13:40	0°♎			1342 Mar 09 j 10:47	0°♒	
	1337 Jan 11 j 23:38	0°♏			1342 Apr 27 j 06:53	0°♑	
retrograde	1337 Mar 20 j 03:57	19°♏21'04			1342 Jun 14 j 16:10	0°♌	
opposition	1337 Apr 24 j 16:08	11°♏57'56	0°14'01	evening set	1342 Jul 28 j 20:23	27°♌45'06	
greatest brilliancy	1337 Apr 07 j 21:01	17°♏08'12	-2.1m		1342 Aug 01 j 09:21	0°♍	
desc. node	1337 Apr 29 j 12:24	10°♏13'35		max. Earth dist.	1342 Aug 27 j 17:47	16°♍52'45	2.64678 AU
min. Earth dist.	1337 May 02 j 19:35	9°♏03'30	0.52297 AU				
direct	1337 Jun 02 j 18:41	2°♏55'47		conjunction	1342 Sep 12 j 10:34	27°♍04'43	0°50'51
	1337 Aug 16 j 04:14	0°♏		minimum elong	1342 Sep 12 j 11:44	27°♍06'36	0°50'50
	1337 Sep 30 j 10:42	0°♐			1342 Sep 16 j 21:45	0°♎	
	1337 Nov 10 j 02:24	0°♑		morning rise	1342 Oct 27 j 18:24	27°♎14'15	
	1337 Dec 19 j 13:43	0°♐			1342 Oct 31 j 19:57	0°♏	
	1338 Jan 28 j 10:24	0°♑			1342 Dec 14 j 01:46	0°♏	
asc. node	1338 Feb 26 j 23:53	21°♑39'11		desc. node	1342 Dec 20 j 09:19	4°♏28'34	
	1338 Mar 10 j 15:02	0°♒			1343 Jan 24 j 18:58	0°♐	
	1338 Apr 22 j 14:52	0°♒			1343 Mar 06 j 08:31	0°♑	
evening set	1338 May 11 j 01:49	12°♒29'32			1343 Apr 15 j 09:50	0°♐	
	1338 Jun 06 j 10:33	0°♑			1343 May 26 j 01:59	0°♑	
					1343 Jul 08 j 17:50	0°♒	
conjunction	1338 Jun 30 j 16:49	15°♑49'24	1°00'09		1343 Sep 04 j 00:59	0°♒	
minimum elong	1338 Jun 30 j 15:39	15°♑47'30	1°00'09	retrograde	1343 Oct 03 j 18:51	5°♒38'28	

asc. node	1343 Oct 19 j 21:53	3°II43'41			1348 Oct 15 j 05:17	0°♂		
	1343 Nov 01 j 04:22	30°R♂			1348 Nov 24 j 02:16	0°♂		
min. Earth dist.	1343 Nov 03 j 11:01	29°♂10'15	0.52489 AU	evening set	1348 Dec 12 j 21:26	14°♂34'51		
opposition	1343 Nov 10 j 23:08	26°♂19'56	1°05'15		1349 Jan 01 j 12:37	0°≈		
greatest brilliancy	1343 Nov 10 j 11:18	26°♂31'10	-2.0m		1349 Feb 08 j 12:00	0°♂		
direct	1343 Dec 15 j 22:58	18°♂37'33						
	1344 Feb 01 j 18:21	0°II		conjunction	1349 Feb 17 j 10:17	7°♂01'34	0°-59'-52	
	1344 Apr 02 j 09:39	0°♂		minimum elong	1349 Feb 17 j 12:40	7°♂06'15	0°59'52	
	1344 May 24 j 11:57	0°♂			1349 Mar 18 j 22:44	0°♀		
	1344 Jul 12 j 16:39	0°♂		max. Earth dist.	1349 Apr 06 j 02:09	13°♀50'50	2.39282 AU	
	1344 Aug 28 j 14:22	0°♂		morning rise	1349 Apr 27 j 18:29	0°♂03'13		
evening set	1344 Sep 03 j 18:00	4°♂02'47			1349 Apr 27 j 16:44	0°♂		
max. Earth dist.	1344 Sep 22 j 16:33	16°♂41'01	2.56600 AU		1349 Jun 08 j 10:04	0°II		
	1344 Oct 12 j 05:04	0°♂		asc. node	1349 Jun 10 j 18:50	1°II39'07		
					1349 Jul 22 j 15:05	0°♂		
conjunction	1344 Oct 21 j 12:22	6°♂27'12	0°09'32		1349 Sep 08 j 00:21	0°♂		
minimum elong	1344 Oct 21 j 12:45	6°♂27'53	0°09'32		1349 Oct 31 j 00:05	0°♂		
behind sun begin	1344 Oct 20 j 19:48	5°♂58'22		retrograde	1350 Jan 19 j 12:43	26°♂07'57		
behind sun end	1344 Oct 22 j 05:42	6°♂57'25		opposition	1350 Feb 27 j 17:05	17°♂02'21	3°55'56	
desc. node	1344 Nov 06 j 08:32	17°♂36'08		greatest brilliancy	1350 Feb 28 j 08:40	16°♂47'06	-1.3m	
	1344 Nov 23 j 15:26	0°♂		min. Earth dist.	1350 Mar 03 j 08:44	15°♂36'34	0.65590 AU	
morning rise	1344 Dec 11 j 01:13	12°♂43'15		direct	1350 Apr 10 j 03:31	7°♂00'03		
	1345 Jan 03 j 05:37	0°♂			1350 Jun 21 j 21:13	0°♂		
	1345 Feb 11 j 12:46	0°≈		desc. node	1350 Jun 29 j 05:36	3°♂53'54		
	1345 Mar 22 j 06:05	0°♂			1350 Aug 11 j 18:25	0°♂		
	1345 Apr 30 j 06:39	0°♀			1350 Sep 24 j 11:21	0°♂		
	1345 Jun 09 j 17:17	0°♂			1350 Nov 03 j 18:20	0°♂		
	1345 Jul 23 j 06:01	0°II			1350 Dec 12 j 08:00	0°≈		
asc. node	1345 Sep 05 j 19:54	26°II37'11			1351 Jan 19 j 10:16	0°♂		
	1345 Sep 12 j 09:18	0°♂		evening set	1351 Feb 22 j 01:23	26°♂09'10		
retrograde	1345 Nov 11 j 10:41	17°♂57'24			1351 Feb 27 j 01:48	0°♀		
min. Earth dist.	1345 Dec 17 j 07:08	9°♂37'52	0.63050 AU		1351 Apr 08 j 02:25	0°♂		
opposition	1345 Dec 21 j 09:06	7°♂59'51	3°48'31					
greatest brilliancy	1345 Dec 20 j 13:57	8°♂19'02	-1.4m	conjunction	1351 Apr 26 j 10:49	13°♂18'20	0°-1'-26	
	1346 Jan 16 j 03:43	30°RII		minimum elong	1351 Apr 26 j 10:53	13°♂18'27	0°01'27	
direct	1346 Jan 28 j 20:31	28°II56'39		behind sun begin	1351 Apr 25 j 09:52	12°♂33'35		
	1346 Feb 11 j 06:45	0°♂		behind sun end	1351 Apr 27 j 11:54	14°♂03'16		
	1346 Apr 30 j 00:48	0°♂		asc. node	1351 Apr 28 j 16:44	14°♂54'54		
	1346 Jun 22 j 09:17	0°♂			1351 May 20 j 01:23	0°II		
	1346 Aug 09 j 15:08	0°♂		max. Earth dist.	1351 Jun 03 j 14:52	10°II04'12	2.52607 AU	
	1346 Sep 23 j 11:37	0°♂		morning rise	1351 Jun 22 j 12:55	22°II54'10		
desc. node	1346 Sep 24 j 07:07	0°♂33'43			1351 Jul 03 j 04:05	0°♂		
evening set	1346 Oct 17 j 08:44	16°♂47'32			1351 Aug 18 j 10:50	0°♂		
max. Earth dist.	1346 Nov 01 j 16:51	27°♂52'16	2.44407 AU		1351 Oct 06 j 01:49	0°♂		
	1346 Nov 04 j 14:46	0°♂			1351 Nov 27 j 15:10	0°♂		
					1352 Feb 06 j 21:42	0°♂		
conjunction	1346 Dec 11 j 04:40	27°♂21'40	0°-44'-56	retrograde	1352 Feb 29 j 17:33	2°♂51'12		
minimum elong	1346 Dec 11 j 02:29	27°♂17'31	0°44'56		1352 Mar 21 j 23:49	30°R♂		
	1346 Dec 14 j 15:35	0°♂		opposition	1352 Apr 06 j 15:10	24°♂50'49	1°43'01	
	1347 Jan 22 j 08:03	0°≈		greatest brilliancy	1352 Apr 07 j 08:03	24°♂35'08	-1.7m	
morning rise	1347 Feb 12 j 13:05	16°≈39'43		min. Earth dist.	1352 Apr 13 j 19:26	22°♂10'38	0.57124 AU	
	1347 Mar 01 j 12:15	0°♂		direct	1352 May 16 j 23:40	15°♂15'16		
	1347 Apr 09 j 01:12	0°♀		desc. node	1352 May 16 j 04:05	15°♂15'32		
	1347 May 18 j 20:18	0°♂			1352 Jul 09 j 03:18	0°♂		
	1347 Jun 29 j 19:33	0°II			1352 Aug 29 j 10:32	0°♂		
asc. node	1347 Jul 24 j 19:42	16°II53'46			1352 Oct 10 j 22:03	0°♂		
	1347 Aug 14 j 03:35	0°♂			1352 Nov 19 j 12:07	0°≈		
	1347 Oct 05 j 02:03	0°♂			1352 Dec 28 j 07:35	0°♂		
retrograde	1347 Dec 16 j 05:35	22°♂46'58			1353 Feb 05 j 15:19	0°♀		
opposition	1348 Jan 25 j 08:35	13°♂03'18	4°33'40	asc. node	1353 Mar 15 j 16:20	28°♀04'38		
greatest brilliancy	1348 Jan 25 j 06:06	13°♂05'47	-1.2m		1353 Mar 18 j 08:13	0°♂		
min. Earth dist.	1348 Jan 25 j 03:16	13°♂08'37	0.67608 AU	evening set	1353 Apr 22 j 01:44	24°♂34'32		
direct	1348 Mar 05 j 23:49	3°♂16'45			1353 Apr 29 j 22:01	0°II		
	1348 May 27 j 06:19	0°♂			1353 Jun 13 j 10:16	0°♂		
	1348 Jul 18 j 19:11	0°♂						
desc. node	1348 Aug 11 j 06:06	14°♂54'13		conjunction	1353 Jun 14 j 09:59	0°♂39'09	0°49'00	
	1348 Sep 02 j 20:52	0°♂		minimum elong	1353 Jun 14 j 08:26	0°♂36'36	0°49'00	

max. Earth dist.	1353 Jul 02 j 18:55	12° $\overline{54}$ 1'50	2.62540 AU	opposition	1358 Oct 21 j 23:39	6° $\overline{8}$ 31'47	0°-47'-57
	1353 Jul 29 j 14:01	0° $\overline{9}$		greatest brilliancy	1358 Oct 21 j 14:48	6° $\overline{8}$ 39'42	-2.3m
morning rise	1353 Aug 02 j 03:13	2° $\overline{9}$ 16'22		asc. node	1358 Nov 05 j 13:27	1° $\overline{8}$ 56'57	
	1353 Sep 14 j 22:38	0° $\overline{7}$			1358 Nov 16 j 14:27	30° \overline{R} \overline{Y}	
	1353 Nov 02 j 07:40	0° $\overline{5}$		direct	1358 Nov 24 j 04:44	29° \overline{Y} 36'52	
	1353 Dec 22 j 09:42	0° \overline{M}			1358 Dec 01 j 23:01	0° $\overline{8}$	
	1354 Feb 15 j 17:43	0° $\overline{7}$			1359 Feb 18 j 21:07	0° \overline{II}	
desc. node	1354 Apr 03 j 03:01	17° $\overline{7}$ 51'55			1359 Apr 13 j 03:45	0° $\overline{5}$	
retrograde	1354 Apr 26 j 00:26	20° $\overline{7}$ 49'27			1359 Jun 02 j 07:57	0° $\overline{9}$	
opposition	1354 May 28 j 21:26	14° $\overline{7}$ 40'25	-3°-2'-37		1359 Jul 20 j 19:12	0° $\overline{7}$	
greatest brilliancy	1354 May 30 j 03:26	14° $\overline{7}$ 16'28	-2.4m	evening set	1359 Aug 20 j 16:05	19° $\overline{7}$ 41'49	
min. Earth dist.	1354 Jun 05 j 22:45	12° $\overline{7}$ 07'20	0.44214 AU		1359 Sep 05 j 11:39	0° $\overline{5}$	
direct	1354 Jul 03 j 13:55	7° $\overline{7}$ 14'12		max. Earth dist.	1359 Sep 12 j 13:19	4° $\overline{5}$ 39'17	2.60332 AU
	1354 Sep 06 j 19:22	0° $\overline{3}$					
	1354 Oct 22 j 20:28	0° \approx		conjunction	1359 Oct 06 j 03:39	20° $\overline{5}$ 26'16	0°28'05
	1354 Dec 03 j 16:04	0° \overline{H}		minimum elong	1359 Oct 06 j 04:36	20° $\overline{5}$ 27'53	0°28'03
	1355 Jan 14 j 01:15	0° \overline{Y}			1359 Oct 20 j 04:10	0° \overline{M}	
asc. node	1355 Jan 31 j 15:50	12° \overline{Y} 35'46		morning rise	1359 Nov 22 j 22:46	23° \overline{M} 37'31	
	1355 Feb 25 j 09:06	0° $\overline{8}$		desc. node	1359 Nov 24 j 00:06	24° \overline{M} 22'39	
	1355 Apr 10 j 05:53	0° \overline{II}			1359 Dec 01 j 20:42	0° $\overline{7}$	
	1355 May 25 j 16:13	0° $\overline{5}$			1360 Jan 11 j 19:40	0° $\overline{3}$	
evening set	1355 Jun 06 j 16:15	7° $\overline{5}$ 46'58			1360 Feb 20 j 12:16	0° \approx	
	1355 Jul 11 j 06:23	0° $\overline{9}$			1360 Mar 30 j 14:43	0° \overline{H}	
					1360 May 09 j 00:57	0° \overline{Y}	
conjunction	1355 Jul 24 j 09:47	8° $\overline{9}$ 23'08	1°08'39		1360 Jun 19 j 02:52	0° $\overline{8}$	
minimum elong	1355 Jul 24 j 09:30	8° $\overline{9}$ 22'39	1°08'40		1360 Aug 03 j 09:30	0° \overline{II}	
max. Earth dist.	1355 Jul 27 j 05:07	10° $\overline{9}$ 10'21	2.67212 AU	asc. node	1360 Sep 22 j 12:49	25° \overline{II} 38'26	
	1355 Aug 27 j 08:33	0° $\overline{7}$			1360 Oct 06 j 02:04	0° $\overline{5}$	
morning rise	1355 Sep 07 j 10:28	7° $\overline{7}$ 03'32		retrograde	1360 Oct 27 j 23:28	3° $\overline{5}$ 01'15	
	1355 Oct 13 j 07:58	0° $\overline{5}$			1360 Nov 17 j 13:32	30° \overline{R} \overline{II}	
	1355 Nov 28 j 21:41	0° \overline{M}		min. Earth dist.	1360 Nov 30 j 22:14	25° \overline{II} 20'54	0.59540 AU
	1356 Jan 14 j 04:01	0° $\overline{7}$		opposition	1360 Dec 06 j 11:06	23° \overline{II} 09'25	3°03'09
desc. node	1356 Feb 19 j 02:36	23° $\overline{7}$ 13'59		greatest brilliancy	1360 Dec 05 j 13:36	23° \overline{II} 30'44	-1.6m
	1356 Feb 29 j 16:00	0° $\overline{3}$		direct	1361 Jan 12 j 17:24	14° \overline{II} 32'19	
	1356 Apr 18 j 02:31	0° \approx			1361 Mar 12 j 04:58	0° $\overline{5}$	
	1356 Jun 20 j 07:03	0° \overline{H}			1361 May 10 j 03:11	0° $\overline{9}$	
retrograde	1356 Jul 13 j 14:02	3° \overline{H} 23'49			1361 Jun 30 j 07:13	0° $\overline{7}$	
	1356 Aug 06 j 04:51	30° \overline{R} \approx			1361 Aug 16 j 21:04	0° $\overline{5}$	
min. Earth dist.	1356 Aug 10 j 21:37	28° \approx 46'18	0.37481 AU	evening set	1361 Sep 29 j 05:17	29° $\overline{5}$ 03'19	
opposition	1356 Aug 13 j 04:18	28° \approx 09'41	-6°-39'-17		1361 Sep 30 j 14:06	0° \overline{M}	
greatest brilliancy	1356 Aug 12 j 16:24	28° \approx 17'40	-2.9m	desc. node	1361 Oct 10 j 23:54	7° \overline{M} 14'49	
direct	1356 Sep 11 j 15:34	23° \approx 14'42		max. Earth dist.	1361 Oct 13 j 23:57	9° \overline{M} 21'19	2.49499 AU
	1356 Oct 15 j 08:57	0° \overline{H}			1361 Nov 11 j 19:08	0° $\overline{7}$	
	1356 Dec 13 j 03:35	0° \overline{Y}					
asc. node	1356 Dec 18 j 14:25	3° \overline{Y} 16'09		conjunction	1361 Nov 19 j 12:30	5° $\overline{7}$ 39'37	0°-24'00
	1357 Jan 30 j 12:52	0° $\overline{8}$		minimum elong	1361 Nov 19 j 11:17	5° $\overline{7}$ 37'23	0°24'00
	1357 Mar 18 j 17:04	0° \overline{II}			1361 Dec 22 j 00:16	0° $\overline{3}$	
	1357 May 05 j 02:38	0° $\overline{5}$		morning rise	1362 Jan 15 j 21:59	19° $\overline{3}$ 08'07	
	1357 Jun 21 j 18:43	0° $\overline{9}$			1362 Jan 29 j 21:18	0° \approx	
evening set	1357 Jul 14 j 10:10	14° $\overline{9}$ 16'46			1362 Mar 09 j 05:16	0° \overline{H}	
	1357 Aug 08 j 04:47	0° $\overline{7}$			1362 Apr 16 j 21:03	0° \overline{Y}	
max. Earth dist.	1357 Aug 18 j 07:48	6° $\overline{7}$ 28'04	2.66446 AU		1362 May 26 j 19:14	0° $\overline{8}$	
					1362 Jul 08 j 02:14	0° \overline{II}	
conjunction	1357 Aug 29 j 01:21	13° $\overline{7}$ 21'19	1°00'42	asc. node	1362 Aug 10 j 10:55	21° \overline{II} 55'50	
minimum elong	1357 Aug 29 j 02:18	13° $\overline{7}$ 22'51	1°00'41		1362 Aug 23 j 12:54	0° $\overline{5}$	
	1357 Sep 23 j 17:36	0° $\overline{5}$			1362 Oct 20 j 10:36	0° $\overline{9}$	
morning rise	1357 Oct 12 j 15:55	12° $\overline{5}$ 26'30		retrograde	1362 Dec 02 j 22:36	9° $\overline{9}$ 52'53	
	1357 Nov 07 j 23:01	0° \overline{M}		min. Earth dist.	1363 Jan 10 j 08:54	0° $\overline{9}$ 42'22	0.66607 AU
	1357 Dec 21 j 17:52	0° $\overline{7}$		opposition	1363 Jan 12 j 02:51	0° $\overline{9}$ 00'16	4°26'45
desc. node	1358 Jan 06 j 01:00	10° $\overline{7}$ 42'27		greatest brilliancy	1363 Jan 11 j 16:51	0° $\overline{9}$ 10'18	-1.3m
	1358 Feb 02 j 05:07	0° $\overline{3}$			1363 Jan 12 j 03:07	30° \overline{R} $\overline{5}$	
	1358 Mar 15 j 16:25	0° \approx		direct	1363 Feb 21 j 01:11	20° $\overline{5}$ 27'24	
	1358 Apr 25 j 20:42	0° \overline{H}			1363 Apr 06 j 12:48	0° $\overline{9}$	
	1358 Jun 07 j 08:28	0° \overline{Y}			1363 Jun 07 j 18:00	0° $\overline{7}$	
	1358 Jul 26 j 13:14	0° $\overline{8}$			1363 Jul 27 j 23:26	0° $\overline{5}$	
retrograde	1358 Sep 15 j 06:41	15° $\overline{8}$ 03'02		desc. node	1363 Aug 28 j 22:18	20° $\overline{5}$ 49'44	
min. Earth dist.	1358 Oct 13 j 18:26	9° $\overline{8}$ 27'14	0.47285 AU		1363 Sep 11 j 10:23	0° \overline{M}	

	1363 Oct 23 j 15:32	0°♄			1368 Jun 20 j 10:12	0°♄		
evening set	1363 Nov 19 j 03:18	19°♄45'39		max. Earth dist.	1368 Jun 22 j 02:10	1°♄06'12	2.59236 AU	
	1363 Dec 02 j 13:20	0°♄		morning rise	1368 Jul 17 j 22:14	18°♄01'19		
max. Earth dist.	1363 Dec 31 j 13:55	22°♄33'13	2.37487 AU		1368 Aug 05 j 12:53	0°♄		
	1364 Jan 10 j 01:16	0°♄			1368 Sep 22 j 04:53	0°♄		
					1368 Nov 10 j 15:15	0°♄		
conjunction	1364 Jan 20 j 09:12	8°♄08'42	-1°-4'-35		1369 Jan 02 j 20:24	0°♄		
minimum elong	1364 Jan 20 j 08:36	8°♄07'31	1°04'36		1369 Mar 27 j 06:18	0°♄		
	1364 Feb 17 j 01:34	0°♄		retrograde	1369 Apr 01 j 09:57	0°♄09'39		
	1364 Mar 26 j 12:00	0°♄			1369 Apr 06 j 11:11	30°♄		
morning rise	1364 Mar 30 j 19:09	3°♄18'22		desc. node	1369 Apr 19 j 18:38	28°♄02'08		
	1364 May 05 j 04:48	0°♄		opposition	1369 May 06 j 01:20	23°♄10'17	0°-49'-39	
	1364 Jun 15 j 21:54	0°♄		greatest brilliancy	1369 May 06 j 11:10	23°♄01'45	-2.1m	
asc. node	1364 Jun 27 j 10:15	7°♄58'37		min. Earth dist.	1369 May 14 j 11:05	20°♄16'02	0.49451 AU	
	1364 Jul 30 j 08:07	0°♄		direct	1369 Jun 13 j 04:02	14°♄35'18		
	1364 Sep 16 j 17:01	0°♄			1369 Aug 04 j 20:36	0°♄		
	1364 Nov 13 j 12:16	0°♄			1369 Sep 23 j 00:02	0°♄		
retrograde	1365 Jan 05 j 11:35	13°♄16'00			1369 Nov 03 j 18:23	0°♄		
opposition	1365 Feb 14 j 03:56	3°♄52'55	4°20'05		1369 Dec 13 j 19:09	0°♄		
greatest brilliancy	1365 Feb 14 j 13:09	3°♄43'48	-1.2m		1370 Jan 23 j 01:11	0°♄		
min. Earth dist.	1365 Feb 16 j 07:13	3°♄02'10	0.67168 AU	asc. node	1370 Feb 17 j 07:07	18°♄23'37		
	1365 Feb 24 j 05:10	30°♄			1370 Mar 05 j 12:51	0°♄		
direct	1365 Mar 27 j 10:55	23°♄53'17			1370 Apr 17 j 18:17	0°♄		
	1365 Apr 30 j 16:13	0°♄		evening set	1370 May 21 j 02:44	22°♄20'37		
	1365 Jul 03 j 10:16	0°♄			1370 Jun 01 j 17:50	0°♄		
desc. node	1365 Jul 15 j 20:36	7°♄18'19						
	1365 Aug 20 j 14:10	0°♄		conjunction	1370 Jul 09 j 13:04	24°♄30'49	1°04'32	
	1365 Oct 02 j 13:51	0°♄		minimum elong	1370 Jul 09 j 12:11	24°♄29'25	1°04'32	
	1365 Nov 11 j 15:18	0°♄		max. Earth dist.	1370 Jul 18 j 03:04	0°♄01'10	2.66041 AU	
	1365 Dec 20 j 02:36	0°♄			1370 Jul 18 j 02:20	0°♄		
greatest brilliancy	1366 Jan 20 j 02:43	24°♄29'01	1.2m	morning rise	1370 Aug 24 j 14:11	23°♄53'50		
evening set	1366 Jan 25 j 03:23	28°♄26'49			1370 Sep 03 j 04:59	0°♄		
	1366 Jan 27 j 02:43	0°♄			1370 Oct 20 j 13:44	0°♄		
	1366 Mar 06 j 15:17	0°♄			1370 Dec 07 j 02:13	0°♄		
					1371 Jan 24 j 07:19	0°♄		
conjunction	1366 Apr 02 j 02:40	20°♄04'04	0°-27'-14	desc. node	1371 Mar 07 j 17:25	25°♄14'37		
minimum elong	1366 Apr 02 j 04:47	20°♄08'01	0°27'14		1371 Mar 16 j 03:33	0°♄		
	1366 Apr 15 j 11:56	0°♄			1371 May 24 j 07:06	0°♄		
asc. node	1366 May 15 j 10:07	21°♄38'15		retrograde	1371 Jun 12 j 06:02	2°♄10'26		
max. Earth dist.	1366 May 18 j 14:58	23°♄54'23	2.47472 AU		1371 Jul 01 j 05:03	30°♄		
	1366 May 27 j 06:58	0°♄		opposition	1371 Jul 12 j 13:13	27°♄09'22	-6°-28'-15	
morning rise	1366 Jun 03 j 03:33	4°♄46'36		greatest brilliancy	1371 Jul 13 j 11:29	26°♄54'15	-2.8m	
	1366 Jul 10 j 08:09	0°♄		min. Earth dist.	1371 Jul 15 j 17:49	26°♄17'26	0.38128 AU	
	1366 Aug 25 j 20:28	0°♄		direct	1371 Aug 12 j 14:10	21°♄46'58		
	1366 Oct 14 j 11:59	0°♄			1371 Sep 18 j 05:52	0°♄		
	1366 Dec 10 j 04:54	0°♄			1371 Nov 12 j 06:13	0°♄		
retrograde	1367 Feb 12 j 13:47	17°♄59'56			1371 Dec 28 j 00:33	0°♄		
opposition	1367 Mar 22 j 13:16	9°♄29'51	2°48'32	asc. node	1372 Jan 05 j 06:38	5°♄31'50		
greatest brilliancy	1367 Mar 23 j 09:39	9°♄10'23	-1.5m		1372 Feb 10 j 18:50	0°♄		
min. Earth dist.	1367 Mar 28 j 10:48	7°♄14'42	0.61145 AU		1372 Mar 27 j 04:36	0°♄		
	1367 Apr 24 j 21:28	30°♄			1372 May 12 j 14:37	0°♄		
direct	1367 May 02 j 14:49	29°♄36'15			1372 Jun 28 j 18:07	0°♄		
	1367 May 10 j 12:33	0°♄		evening set	1372 Jun 29 j 19:23	0°♄40'04		
desc. node	1367 Jun 02 j 19:45	5°♄05'34		max. Earth dist.	1372 Aug 09 j 05:51	26°♄20'38	2.67401 AU	
	1367 Jul 25 j 09:34	0°♄						
	1367 Sep 09 j 20:43	0°♄		conjunction	1372 Aug 14 j 21:26	29°♄56'40	1°06'50	
	1367 Oct 21 j 02:16	0°♄		minimum elong	1372 Aug 14 j 21:59	29°♄57'33	1°06'50	
	1367 Nov 29 j 02:47	0°♄			1372 Aug 14 j 23:32	0°♄		
	1368 Jan 06 j 12:57	0°♄		morning rise	1372 Sep 28 j 06:47	28°♄28'53		
	1368 Feb 14 j 12:22	0°♄			1372 Sep 30 j 14:55	0°♄		
	1368 Mar 25 j 21:05	0°♄			1372 Nov 15 j 06:04	0°♄		
evening set	1368 Mar 31 j 19:02	4°♄17'08			1372 Dec 29 j 18:11	0°♄		
asc. node	1368 Apr 01 j 08:38	4°♄41'41		desc. node	1373 Jan 22 j 17:24	16°♄26'58		
	1368 May 07 j 03:25	0°♄			1373 Feb 11 j 06:36	0°♄		
					1373 Mar 26 j 04:06	0°♄		
conjunction	1368 May 27 j 14:42	14°♄02'04	0°33'02		1373 May 08 j 12:07	0°♄		
minimum elong	1368 May 27 j 13:12	13°♄59'32	0°33'01		1373 Jun 24 j 23:57	0°♄		

retrograde	1373 Aug 24 j 18:52	20°♄34'34			1378 Sep 18 j 17:45	0°♍	
min. Earth dist.	1373 Sep 20 j 15:56	15°♄45'53	0.42268 AU	evening set	1378 Oct 28 j 12:32	28°♍15'16	
greatest brilliancy	1373 Sep 27 j 04:24	13°♄39'34	-2.6m		1378 Oct 30 j 21:49	0°♄	
opposition	1373 Sep 28 j 08:25	13°♄16'51	-3°-13'-22	max. Earth dist.	1378 Nov 15 j 21:41	11°♄49'57	2.41597 AU
direct	1373 Oct 29 j 14:20	7°♄17'24			1378 Dec 09 j 21:46	0°♄	
asc. node	1373 Nov 22 j 05:16	10°♄38'23					
	1374 Jan 08 j 03:19	0°♄		conjunction	1378 Dec 24 j 18:49	11°♄28'02	0°-54'-51
	1374 Mar 02 j 20:39	0°♄		minimum elong	1378 Dec 24 j 16:35	11°♄23'42	0°54'51
	1374 Apr 21 j 20:54	0°♄			1379 Jan 17 j 12:36	0°♄	
	1374 Jun 09 j 19:00	0°♄			1379 Feb 24 j 15:05	0°♄	
	1374 Jul 27 j 17:55	0°♄		morning rise	1379 Mar 01 j 10:14	3°♄46'14	
evening set	1374 Aug 06 j 02:00	5°♄56'02			1379 Apr 04 j 02:39	0°♄	
max. Earth dist.	1374 Sep 02 j 09:25	23°♄30'48	2.63366 AU		1379 May 13 j 20:01	0°♄	
	1374 Sep 12 j 07:46	0°♄			1379 Jun 24 j 15:19	0°♄	
				asc. node	1379 Jul 15 j 03:12	14°♄00'47	
conjunction	1374 Sep 20 j 20:09	5°♄36'13	0°43'29		1379 Aug 08 j 11:59	0°♄	
minimum elong	1374 Sep 20 j 21:19	5°♄38'09	0°43'28		1379 Sep 27 j 14:29	0°♄	
	1374 Oct 27 j 04:15	0°♄			1379 Dec 14 j 05:42	0°♄	
morning rise	1374 Nov 05 j 19:44	6°♄37'00		retrograde	1379 Dec 23 j 22:29	0°♄34'01	
	1374 Dec 09 j 05:21	0°♄			1380 Jan 02 j 06:36	30°♄	
desc. node	1374 Dec 10 j 16:23	1°♄02'18		opposition	1380 Feb 01 j 22:15	20°♄56'49	4°32'03
	1375 Jan 19 j 15:48	0°♄		greatest brilliancy	1380 Feb 01 j 23:59	20°♄55'05	-1.2m
	1375 Feb 28 j 20:54	0°♄		min. Earth dist.	1380 Feb 02 j 12:54	20°♄42'12	0.67727 AU
	1375 Apr 09 j 12:06	0°♄		direct	1380 Mar 13 j 19:59	11°♄04'36	
	1375 May 19 j 13:44	0°♄			1380 May 19 j 01:07	0°♄	
	1375 Jun 30 j 20:34	0°♄			1380 Jul 13 j 01:01	0°♄	
	1375 Aug 19 j 10:03	0°♄		desc. node	1380 Aug 01 j 12:35	12°♄05'50	
asc. node	1375 Oct 10 j 03:40	16°♄26'43			1380 Aug 28 j 18:16	0°♄	
retrograde	1375 Oct 13 j 10:08	16°♄31'15			1380 Oct 10 j 07:59	0°♄	
min. Earth dist.	1375 Nov 14 j 07:15	9°♄35'30	0.55194 AU		1380 Nov 19 j 06:44	0°♄	
greatest brilliancy	1375 Nov 20 j 09:55	7°♄13'43	-1.8m	evening set	1380 Dec 27 j 23:57	0°♄13'09	
opposition	1375 Nov 21 j 04:06	6°♄56'04	1°56'22		1380 Dec 27 j 17:17	0°♄	
	1375 Dec 14 j 00:24	30°♄			1381 Feb 03 j 16:23	0°♄	
direct	1375 Dec 27 j 00:30	28°♄51'43					
	1376 Jan 09 j 17:21	0°♄		conjunction	1381 Mar 05 j 17:57	23°♄31'46	0°-50'-37
	1376 Mar 26 j 03:29	0°♄		minimum elong	1381 Mar 05 j 21:06	23°♄37'54	0°50'36
	1376 May 18 j 23:35	0°♄			1381 Mar 14 j 03:00	0°♄	
	1376 Jul 07 j 18:52	0°♄			1381 Apr 22 j 20:57	0°♄	
	1376 Aug 23 j 22:06	0°♄		max. Earth dist.	1381 Apr 26 j 03:44	2°♄25'11	2.42083 AU
evening set	1376 Sep 12 j 16:51	13°♄05'12		morning rise	1381 May 11 j 21:51	13°♄53'39	
max. Earth dist.	1376 Sep 29 j 21:24	24°♄43'03	2.54240 AU	asc. node	1381 Jun 01 j 01:26	28°♄14'31	
	1376 Oct 07 j 13:59	0°♄			1381 Jun 03 j 13:35	0°♄	
desc. node	1376 Oct 27 j 15:04	14°♄00'19			1381 Jul 17 j 15:37	0°♄	
					1381 Sep 02 j 14:13	0°♄	
conjunction	1376 Oct 31 j 11:22	16°♄43'50	0°-2'-22		1381 Oct 23 j 22:15	0°♄	
minimum elong	1376 Oct 31 j 11:15	16°♄43'37	0°02'23		1381 Dec 30 j 22:57	0°♄	
behind sun begin	1376 Oct 30 j 14:10	16°♄06'13		retrograde	1382 Jan 27 j 23:56	4°♄12'35	
behind sun end	1376 Nov 01 j 08:19	17°♄21'03			1382 Feb 22 j 18:51	30°♄	
	1376 Nov 18 j 22:48	0°♄		opposition	1382 Mar 07 j 19:02	25°♄18'26	3°35'27
morning rise	1376 Dec 23 j 00:52	25°♄11'22		greatest brilliancy	1382 Mar 08 j 13:12	25°♄00'46	-1.4m
	1376 Dec 29 j 10:06	0°♄		min. Earth dist.	1382 Mar 12 j 06:02	23°♄34'24	0.64267 AU
	1377 Feb 06 j 13:44	0°♄		direct	1382 Apr 18 j 03:54	15°♄17'16	
	1377 Mar 17 j 03:21	0°♄			1382 Jun 12 j 09:37	0°♄	
	1377 Apr 24 j 23:56	0°♄		desc. node	1382 Jun 19 j 11:11	3°♄20'21	
	1377 Jun 04 j 04:04	0°♄			1382 Aug 05 j 12:44	0°♄	
	1377 Jul 17 j 01:13	0°♄			1382 Sep 19 j 00:04	0°♄	
asc. node	1377 Aug 27 j 03:41	25°♄45'20			1382 Oct 29 j 14:08	0°♄	
	1377 Sep 03 j 15:18	0°♄			1382 Dec 07 j 07:16	0°♄	
retrograde	1377 Nov 19 j 10:15	26°♄28'17			1383 Jan 14 j 11:43	0°♄	
min. Earth dist.	1377 Dec 26 j 05:30	17°♄49'29	0.64577 AU		1383 Feb 22 j 05:13	0°♄	
opposition	1377 Dec 29 j 11:51	16°♄30'52	4°07'02	evening set	1383 Mar 08 j 19:00	11°♄03'01	
greatest brilliancy	1377 Dec 28 j 19:20	16°♄47'28	-1.4m		1383 Apr 03 j 07:36	0°♄	
direct	1378 Feb 06 j 12:38	7°♄15'54		asc. node	1383 Apr 19 j 00:55	11°♄24'03	
	1378 Apr 22 j 07:21	0°♄					
	1378 Jun 16 j 19:12	0°♄		conjunction	1383 May 08 j 18:54	25°♄25'40	0°12'19
	1378 Aug 04 j 16:00	0°♄		minimum elong	1383 May 08 j 18:09	25°♄24'21	0°12'19
desc. node	1378 Sep 14 j 13:44	27°♄08'07		behind sun begin	1383 May 08 j 02:47	24°♄57'22	

behind sun end	1383 May 09 j 09:31	25°♄51'18			1388 May 27 j 05:43	0°♄	
	1383 May 15 j 07:50	0°♄		retrograde	1388 Jul 30 j 02:16	21°♄29'19	
max. Earth dist.	1383 Jun 11 j 07:22	18°♄30'55	2.55155 AU	min. Earth dist.	1388 Aug 26 j 02:00	17°♄01'36	0.38484 AU
	1383 Jun 28 j 10:44	0°♄		opposition	1388 Aug 30 j 22:07	15°♄38'57	-5°-43'-57
morning rise	1383 Jul 02 j 13:21	2°♄43'29		greatest brilliancy	1388 Aug 29 j 20:24	15°♄57'20	-2.8m
	1383 Aug 13 j 14:30	0°♄		direct	1388 Sep 29 j 17:32	10°♄30'21	
	1383 Sep 30 j 18:36	0°♄			1388 Dec 01 j 08:49	0°♄	
	1383 Nov 20 j 20:31	0°♄		asc. node	1388 Dec 08 j 21:34	3°♄55'37	
	1384 Jan 19 j 18:04	0°♄			1389 Jan 23 j 03:36	0°♄	
retrograde	1384 Mar 11 j 10:58	12°♄27'39			1389 Mar 12 j 19:57	0°♄	
opposition	1384 Apr 16 j 14:38	4°♄46'47	0°54'50		1389 Apr 29 j 22:57	0°♄	
greatest brilliancy	1384 Apr 17 j 01:11	4°♄37'10	-1.8m		1389 Jun 17 j 00:04	0°♄	
min. Earth dist.	1384 Apr 24 j 08:43	1°♄57'10	0.54526 AU	evening set	1389 Jul 22 j 16:56	22°♄27'33	
	1384 Apr 30 j 02:06	30°♄			1389 Aug 03 j 14:12	0°♄	
desc. node	1384 May 06 j 10:36	28°♄08'20		max. Earth dist.	1389 Aug 23 j 17:12	12°♄52'05	2.65579 AU
direct	1384 May 26 j 07:51	25°♄27'28					
	1384 Jun 22 j 16:54	0°♄		conjunction	1389 Sep 06 j 06:06	21°♄36'28	0°55'24
	1384 Aug 21 j 18:19	0°♄		minimum elong	1389 Sep 06 j 07:12	21°♄38'14	0°55'24
	1384 Oct 04 j 14:37	0°♄			1389 Sep 19 j 03:24	0°♄	
	1384 Nov 13 j 17:58	0°♄		morning rise	1389 Oct 21 j 04:14	21°♄12'24	
	1384 Dec 22 j 21:13	0°♄			1389 Nov 03 j 05:29	0°♄	
	1385 Jan 31 j 11:03	0°♄			1389 Dec 16 j 17:34	0°♄	
asc. node	1385 Mar 05 j 23:37	24°♄40'07		desc. node	1389 Dec 27 j 07:49	7°♄28'02	
	1385 Mar 13 j 09:08	0°♄			1390 Jan 27 j 18:55	0°♄	
	1385 Apr 25 j 03:05	0°♄			1390 Mar 09 j 17:40	0°♄	
evening set	1385 May 03 j 02:57	5°♄27'49			1390 Apr 19 j 05:07	0°♄	
	1385 Jun 08 j 18:12	0°♄			1390 May 30 j 11:45	0°♄	
					1390 Jul 14 j 14:44	0°♄	
conjunction	1385 Jun 23 j 20:36	9°♄54'16	0°56'01	retrograde	1390 Sep 26 j 02:51	27°♄34'01	
minimum elong	1385 Jun 23 j 19:14	9°♄52'03	0°56'00	min. Earth dist.	1390 Oct 25 j 19:09	21°♄28'38	0.50185 AU
max. Earth dist.	1385 Jul 08 j 13:11	19°♄26'49	2.64021 AU	asc. node	1390 Oct 26 j 21:12	21°♄05'03	
	1385 Jul 24 j 22:35	0°♄		opposition	1390 Nov 02 j 16:35	18°♄33'31	0°21'12
morning rise	1385 Aug 10 j 10:36	10°♄32'34		greatest brilliancy	1390 Nov 03 j 14:14	18°♄13'29	-2.1m
	1385 Sep 10 j 03:59	0°♄		direct	1390 Dec 06 j 21:48	11°♄11'01	
	1385 Oct 28 j 02:33	0°♄			1391 Feb 09 j 06:33	0°♄	
	1385 Dec 16 j 01:04	0°♄			1391 Apr 06 j 22:37	0°♄	
	1386 Feb 05 j 17:39	0°♄			1391 May 28 j 03:17	0°♄	
desc. node	1386 Mar 24 j 10:11	23°♄01'32			1391 Jul 16 j 00:33	0°♄	
	1386 Apr 12 j 21:07	0°♄		evening set	1391 Aug 29 j 05:16	28°♄15'54	
retrograde	1386 May 11 j 22:01	4°♄38'12			1391 Aug 31 j 20:54	0°♄	
	1386 Jun 09 j 03:59	30°♄		max. Earth dist.	1391 Sep 18 j 21:42	11°♄55'44	2.58367 AU
opposition	1386 Jun 12 j 15:15	28°♄58'39	-4°-25'-30				
greatest brilliancy	1386 Jun 14 j 02:58	28°♄31'53	-2.6m	conjunction	1391 Oct 15 j 07:44	29°♄50'01	0°17'42
min. Earth dist.	1386 Jun 19 j 17:51	26°♄51'25	0.41557 AU	minimum elong	1391 Oct 15 j 08:24	29°♄51'11	0°17'42
direct	1386 Jul 16 j 17:06	22°♄18'40			1391 Oct 15 j 13:32	0°♄	
	1386 Aug 20 j 17:13	0°♄		desc. node	1391 Nov 14 j 06:54	20°♄47'23	
	1386 Oct 13 j 19:02	0°♄			1391 Nov 27 j 03:36	0°♄	
	1386 Nov 26 j 13:26	0°♄		morning rise	1391 Dec 03 j 11:30	4°♄34'43	
	1387 Jan 07 j 22:03	0°♄			1392 Jan 06 j 22:21	0°♄	
asc. node	1387 Jan 21 j 21:42	9°♄50'55			1392 Feb 15 j 09:59	0°♄	
	1387 Feb 19 j 21:00	0°♄			1392 Mar 25 j 06:58	0°♄	
	1387 Apr 05 j 03:57	0°♄			1392 May 03 j 10:48	0°♄	
	1387 May 20 j 21:10	0°♄			1392 Jun 13 j 01:49	0°♄	
evening set	1387 Jun 15 j 16:41	16°♄37'13			1392 Jul 27 j 02:23	0°♄	
	1387 Jul 06 j 15:13	0°♄		asc. node	1392 Sep 12 j 19:29	27°♄10'46	
					1392 Sep 18 j 21:43	0°♄	
conjunction	1387 Aug 01 j 16:38	16°♄35'33	1°09'08	retrograde	1392 Nov 05 j 09:18	12°♄10'48	
minimum elong	1387 Aug 01 j 16:40	16°♄35'36	1°09'08	min. Earth dist.	1392 Dec 10 j 09:46	4°♄08'05	0.61592 AU
max. Earth dist.	1387 Aug 01 j 10:24	16°♄25'37	2.67522 AU	greatest brilliancy	1392 Dec 14 j 06:41	2°♄35'26	-1.5m
	1387 Aug 22 j 17:58	0°♄		opposition	1392 Dec 15 j 03:33	2°♄14'36	3°31'59
morning rise	1387 Sep 15 j 08:20	15°♄04'24			1392 Dec 20 j 21:24	30°♄	
	1387 Oct 08 j 14:02	0°♄		direct	1393 Jan 22 j 02:08	23°♄22'27	
	1387 Nov 23 j 18:34	0°♄			1393 Feb 26 j 23:40	0°♄	
	1388 Jan 08 j 07:12	0°♄			1393 May 03 j 16:19	0°♄	
desc. node	1388 Feb 09 j 09:02	21°♄18'25			1393 Jun 25 j 01:17	0°♄	
	1388 Feb 22 j 10:56	0°♄			1393 Aug 12 j 01:15	0°♄	
	1388 Apr 08 j 00:51	0°♄			1393 Sep 25 j 21:37	0°♄	

desc. node	1393 Oct 01 j 05:34	3° \mathbb{M} 41'41			1398 May 22 j 12:10	0° \mathbb{I}	
evening set	1393 Oct 09 j 07:30	9° \mathbb{M} 20'51		max. Earth dist.	1398 May 28 j 09:26	4° \mathbb{I} 06'05	2.50387 AU
max. Earth dist.	1393 Oct 23 j 23:38	19° \mathbb{M} 46'09	2.46718 AU	morning rise	1398 Jun 14 j 11:43	15° \mathbb{I} 51'05	
	1393 Nov 07 j 02:49	0° \mathbb{J}			1398 Jul 05 j 12:47	0° \mathbb{S}	
					1398 Aug 20 j 20:09	0° \mathbb{Q}	
conjunction	1393 Dec 01 j 10:03	18° \mathbb{J} 00'06	0°-36'-18		1398 Oct 08 j 18:54	0° \mathbb{P}	
minimum elong	1393 Dec 01 j 08:14	17° \mathbb{J} 56'41	0°36'17		1398 Dec 01 j 15:29	0° \mathbb{L}	
	1393 Dec 17 j 06:30	0° \mathbb{Z}		retrograde	1399 Feb 22 j 03:09	26° \mathbb{L} 46'51	
	1394 Jan 25 j 01:33	0° \mathbb{X}		opposition	1399 Mar 31 j 12:43	18° \mathbb{L} 32'16	2°12'57
morning rise	1394 Jan 31 j 00:17	4° \mathbb{X} 39'19		greatest brilliancy	1399 Apr 01 j 07:48	18° \mathbb{L} 14'15	-1.6m
	1394 Mar 04 j 07:17	0° \mathbb{K}		min. Earth dist.	1399 Apr 07 j 03:21	16° \mathbb{L} 02'40	0.59036 AU
greatest brilliancy	1394 Mar 18 j 16:35	11° \mathbb{K} 15'30	1.2m	direct	1399 May 11 j 05:38	8° \mathbb{L} 47'03	
	1394 Apr 11 j 20:49	0° \mathbb{Y}		desc. node	1399 May 24 j 02:36	9° \mathbb{L} 49'22	
	1394 May 21 j 16:01	0° \mathbb{B}			1399 Jul 16 j 17:44	0° \mathbb{M}	
	1394 Jul 02 j 16:16	0° \mathbb{I}			1399 Sep 03 j 13:01	0° \mathbb{J}	
asc. node	1394 Jul 31 j 18:56	19° \mathbb{I} 30'06			1399 Oct 15 j 10:40	0° \mathbb{Z}	
	1394 Aug 17 j 07:28	0° \mathbb{S}			1399 Nov 23 j 18:34	0° \mathbb{X}	
	1394 Oct 09 j 20:24	0° \mathbb{Q}			1400 Jan 01 j 09:09	0° \mathbb{K}	
retrograde	1394 Dec 10 j 14:32	17° \mathbb{Q} 47'55			1400 Feb 09 j 12:01	0° \mathbb{Y}	
opposition	1395 Jan 19 j 18:15	7° \mathbb{Q} 59'41	4°32'17		1400 Mar 20 j 23:55	0° \mathbb{B}	
min. Earth dist.	1395 Jan 18 j 20:22	8° \mathbb{Q} 21'37	0.67283 AU	asc. node	1400 Mar 22 j 15:19	1° \mathbb{B} 11'20	
greatest brilliancy	1395 Jan 19 j 12:18	8° \mathbb{Q} 05'38	-1.2m	evening set	1400 Apr 13 j 04:45	16° \mathbb{B} 36'10	
	1395 Feb 12 j 22:25	30° \mathbb{R} \mathbb{S}			1400 May 02 j 08:49	0° \mathbb{I}	
direct	1395 Mar 01 j 02:08	28° \mathbb{S} 18'51					
	1395 Mar 18 j 09:42	0° \mathbb{Q}		conjunction	1400 Jun 06 j 23:57	24° \mathbb{I} 11'54	0°42'53
	1395 Jun 01 j 02:28	0° \mathbb{P}		minimum elong	1400 Jun 06 j 22:22	24° \mathbb{I} 09'15	0°42'52
	1395 Jul 22 j 15:11	0° \mathbb{L}			1400 Jun 15 j 17:22	0° \mathbb{S}	
desc. node	1395 Aug 19 j 04:10	17° \mathbb{L} 41'15		max. Earth dist.	1400 Jun 28 j 09:50	8° \mathbb{S} 21'42	2.61165 AU
	1395 Sep 06 j 11:50	0° \mathbb{M}		morning rise	1400 Jul 26 j 18:21	26° \mathbb{S} 45'43	
	1395 Oct 18 j 20:02	0° \mathbb{J}			1400 Jul 31 j 19:27	0° \mathbb{Q}	
	1395 Nov 27 j 18:18	0° \mathbb{Z}			1400 Sep 17 j 06:16	0° \mathbb{P}	
evening set	1395 Dec 02 j 18:14	3° \mathbb{Z} 50'52			1400 Nov 05 j 00:35	0° \mathbb{L}	
	1396 Jan 05 j 05:51	0° \mathbb{X}			1400 Dec 26 j 04:31	0° \mathbb{M}	
					1401 Feb 24 j 00:56	0° \mathbb{J}	
conjunction	1396 Feb 05 j 14:59	24° \mathbb{X} 47'11	-1°-3'-51	desc. node	1401 Apr 10 j 01:01	11° \mathbb{J} 44'36	
minimum elong	1396 Feb 05 j 16:09	24° \mathbb{X} 49'29	1°03'52	retrograde	1401 Apr 14 j 18:13	11° \mathbb{J} 52'45	
	1396 Feb 12 j 05:32	0° \mathbb{K}		opposition	1401 May 18 j 11:34	5° \mathbb{J} 20'14	-2°-2'-20
max. Earth dist.	1396 Mar 07 j 10:56	18° \mathbb{K} 59'52	2.37522 AU	greatest brilliancy	1401 May 19 j 09:54	5° \mathbb{J} 01'40	-2.3m
	1396 Mar 21 j 15:36	0° \mathbb{Y}		min. Earth dist.	1401 May 26 j 21:26	2° \mathbb{J} 33'31	0.46534 AU
morning rise	1396 Apr 16 j 00:24	19° \mathbb{Y} 19'18			1401 Jun 04 j 15:30	30° \mathbb{R} \mathbb{M}	
	1396 Apr 30 j 08:06	0° \mathbb{B}		direct	1401 Jun 24 j 08:28	27° \mathbb{M} 20'22	
	1396 Jun 10 j 23:42	0° \mathbb{I}			1401 Jul 14 j 11:52	0° \mathbb{J}	
asc. node	1396 Jun 17 j 18:25	4° \mathbb{I} 43'31			1401 Sep 14 j 03:30	0° \mathbb{Z}	
	1396 Jul 25 j 04:56	0° \mathbb{S}			1401 Oct 27 j 19:06	0° \mathbb{X}	
	1396 Sep 10 j 20:33	0° \mathbb{Q}			1401 Dec 07 j 16:12	0° \mathbb{K}	
	1396 Nov 04 j 05:37	0° \mathbb{P}			1402 Jan 17 j 10:51	0° \mathbb{Y}	
retrograde	1397 Jan 13 j 11:19	21° \mathbb{P} 04'14		asc. node	1402 Feb 07 j 15:06	15° \mathbb{Y} 18'09	
opposition	1397 Feb 21 j 21:03	11° \mathbb{P} 50'19	4°07'20		1402 Feb 28 j 07:52	0° \mathbb{B}	
greatest brilliancy	1397 Feb 22 j 09:55	11° \mathbb{P} 37'38	-1.3m		1402 Apr 12 j 20:00	0° \mathbb{I}	
min. Earth dist.	1397 Feb 24 j 20:12	10° \mathbb{P} 40'15	0.66422 AU		1402 May 28 j 00:18	0° \mathbb{S}	
direct	1397 Apr 04 j 06:03	1° \mathbb{P} 48'34		evening set	1402 May 30 j 17:30	1° \mathbb{S} 46'26	
	1397 Jun 26 j 08:17	0° \mathbb{L}			1402 Jul 13 j 11:03	0° \mathbb{Q}	
desc. node	1397 Jul 06 j 03:48	5° \mathbb{L} 28'30					
	1397 Aug 14 j 23:47	0° \mathbb{M}		conjunction	1402 Jul 18 j 03:42	3° \mathbb{Q} 00'05	1°07'26
	1397 Sep 27 j 10:08	0° \mathbb{J}		minimum elong	1402 Jul 18 j 03:09	2° \mathbb{Q} 59'13	1°07'26
	1397 Nov 06 j 15:25	0° \mathbb{Z}		max. Earth dist.	1402 Jul 23 j 12:47	6° \mathbb{Q} 26'11	2.66796 AU
	1397 Dec 15 j 04:20	0° \mathbb{X}			1402 Aug 29 j 13:03	0° \mathbb{P}	
	1398 Jan 22 j 05:14	0° \mathbb{K}		morning rise	1402 Sep 01 j 13:39	1° \mathbb{P} 55'25	
evening set	1398 Feb 10 j 02:43	14° \mathbb{K} 47'39			1402 Oct 15 j 16:26	0° \mathbb{L}	
	1398 Mar 01 j 18:39	0° \mathbb{Y}			1402 Dec 01 j 15:25	0° \mathbb{M}	
	1398 Apr 10 j 16:24	0° \mathbb{B}			1403 Jan 17 j 15:51	0° \mathbb{J}	
				desc. node	1403 Feb 26 j 00:24	24° \mathbb{J} 42'14	
conjunction	1398 Apr 16 j 07:25	4° \mathbb{B} 07'25	0°-12'-19		1403 Mar 06 j 15:24	0° \mathbb{Z}	
minimum elong	1398 Apr 16 j 08:20	4° \mathbb{B} 09'06	0°12'20		1403 Apr 28 j 00:44	0° \mathbb{X}	
behind sun begin	1398 Apr 15 j 15:35	3° \mathbb{B} 38'30		retrograde	1403 Jun 30 j 15:45	19° \mathbb{X} 54'06	
behind sun end	1398 Apr 17 j 01:05	4° \mathbb{B} 39'40		opposition	1403 Jul 30 j 19:26	14° \mathbb{X} 54'45	-6°-52'-54
asc. node	1398 May 05 j 15:58	18° \mathbb{B} 06'04		greatest brilliancy	1403 Jul 30 j 23:12	14° \mathbb{X} 52'16	-2.9m

min. Earth dist.	1403 Jul 31 j 00:04	14° \approx 51'42	0.37362 AU	conjunction	1408 Nov 11 j 00:23	27° \mathbb{M} 37'22	0°-14'-42
direct	1403 Aug 29 j 14:12	9° \approx 56'29		minimum elong	1408 Nov 10 j 23:40	27° \mathbb{M} 36'05	0°14'43
	1403 Oct 30 j 18:25	0° \mathbb{H}		behind sun begin	1408 Nov 10 j 14:09	27° \mathbb{M} 18'51	
	1403 Dec 20 j 01:02	0° \mathbb{Y}		behind sun end	1408 Nov 11 j 09:11	27° \mathbb{M} 53'19	
asc. node	1403 Dec 26 j 13:35	4° \mathbb{Y} 09'40			1408 Nov 14 j 06:59	0° \mathbb{Z}	
	1404 Feb 04 j 11:19	0° \mathbb{B}			1408 Dec 24 j 15:28	0° \mathbb{Z}	
	1404 Mar 21 j 17:35	0° \mathbb{II}		morning rise	1409 Jan 05 j 02:16	8° \mathbb{Z} 43'17	
	1404 May 07 j 15:20	0° \mathbb{S}			1409 Feb 01 j 15:47	0° \approx	
	1404 Jun 24 j 01:07	0° \mathbb{Q}			1409 Mar 12 j 02:05	0° \mathbb{H}	
evening set	1404 Jul 08 j 05:49	8° \mathbb{Q} 58'21			1409 Apr 19 j 19:12	0° \mathbb{Y}	
	1404 Aug 10 j 09:02	0° \mathbb{M}			1409 May 29 j 18:40	0° \mathbb{B}	
max. Earth dist.	1404 Aug 14 j 12:30	2° \mathbb{M} 38'38	2.66972 AU		1409 Jul 11 j 04:57	0° \mathbb{II}	
				asc. node	1409 Aug 17 j 10:24	24° \mathbb{II} 05'52	
conjunction	1404 Aug 23 j 00:32	8° \mathbb{M} 04'44	1°03'41		1409 Aug 27 j 06:21	0° \mathbb{S}	
minimum elong	1404 Aug 23 j 01:19	8° \mathbb{M} 06'00	1°03'41		1409 Oct 29 j 14:37	0° \mathbb{Q}	
	1404 Sep 25 j 23:25	0° \mathbb{A}		retrograde	1409 Nov 27 j 05:44	4° \mathbb{Q} 41'50	
morning rise	1404 Oct 06 j 11:04	6° \mathbb{A} 51'06			1409 Dec 23 j 16:16	30° \mathbb{R} \mathbb{S}	
	1404 Nov 10 j 09:32	0° \mathbb{M}		min. Earth dist.	1410 Jan 03 j 22:42	25° \mathbb{S} 45'09	0.65830 AU
	1404 Dec 24 j 12:24	0° \mathbb{Z}		opposition	1410 Jan 06 j 09:13	24° \mathbb{S} 46'23	4°20'15
desc. node	1405 Jan 12 j 23:21	13° \mathbb{Z} 30'21		greatest brilliancy	1410 Jan 05 j 20:03	24° \mathbb{S} 59'36	-1.3m
	1405 Feb 05 j 10:23	0° \mathbb{Z}		direct	1410 Feb 14 j 22:22	15° \mathbb{S} 21'06	
	1405 Mar 19 j 11:25	0° \approx			1410 Apr 13 j 02:40	0° \mathbb{Q}	
	1405 Apr 30 j 09:41	0° \mathbb{H}			1410 Jun 10 j 22:39	0° \mathbb{M}	
	1405 Jun 13 j 07:41	0° \mathbb{Y}			1410 Jul 30 j 14:50	0° \mathbb{A}	
	1405 Aug 08 j 23:05	0° \mathbb{B}		desc. node	1410 Sep 04 j 20:35	23° \mathbb{A} 47'18	
retrograde	1405 Sep 06 j 10:23	5° \mathbb{B} 22'24			1410 Sep 13 j 23:08	0° \mathbb{M}	
min. Earth dist.	1405 Oct 04 j 00:56	0° \mathbb{B} 09'24	0.44957 AU		1410 Oct 26 j 05:09	0° \mathbb{Z}	
	1405 Oct 04 j 12:13	30° \mathbb{R} \mathbb{Y}		evening set	1410 Nov 09 j 09:21	10° \mathbb{Z} 28'29	
greatest brilliancy	1405 Oct 11 j 11:28	27° \mathbb{Y} 36'47	-2.4m	max. Earth dist.	1410 Dec 04 j 20:18	29° \mathbb{Z} 43'51	2.39043 AU
opposition	1405 Oct 12 j 05:44	27° \mathbb{Y} 21'06	-1°-47'-3		1410 Dec 05 j 04:43	0° \mathbb{Z}	
asc. node	1405 Nov 12 j 12:22	20° \mathbb{Y} 50'49					
direct	1405 Nov 13 j 14:25	20° \mathbb{Y} 50'21		conjunction	1411 Jan 08 j 08:57	26° \mathbb{Z} 33'03	-1°-1'-52
	1405 Dec 24 j 21:51	0° \mathbb{B}		minimum elong	1411 Jan 08 j 07:21	26° \mathbb{Z} 29'54	1°01'53
	1406 Feb 23 j 13:56	0° \mathbb{II}			1411 Jan 12 j 18:21	0° \approx	
	1406 Apr 16 j 05:20	0° \mathbb{S}			1411 Feb 19 j 19:23	0° \mathbb{H}	
	1406 Jun 04 j 19:23	0° \mathbb{Q}		morning rise	1411 Mar 18 j 15:33	21° \mathbb{H} 01'42	
	1406 Jul 23 j 01:23	0° \mathbb{M}			1411 Mar 30 j 05:29	0° \mathbb{Y}	
evening set	1406 Aug 14 j 09:39	14° \mathbb{M} 13'19			1411 May 08 j 21:20	0° \mathbb{B}	
	1406 Sep 07 j 17:29	0° \mathbb{A}			1411 Jun 19 j 13:35	0° \mathbb{II}	
max. Earth dist.	1406 Sep 08 j 05:06	0° \mathbb{A} 19'02	2.61780 AU	asc. node	1411 Jul 05 j 09:18	10° \mathbb{II} 55'11	
					1411 Aug 03 j 01:43	0° \mathbb{S}	
conjunction	1406 Sep 29 j 12:00	14° \mathbb{A} 25'05	0°34'56		1411 Sep 20 j 22:31	0° \mathbb{Q}	
minimum elong	1406 Sep 29 j 13:06	14° \mathbb{A} 26'54	0°34'55		1411 Nov 21 j 07:12	0° \mathbb{M}	
	1406 Oct 22 j 12:33	0° \mathbb{M}		retrograde	1411 Dec 31 j 16:36	8° \mathbb{M} 19'12	
morning rise	1406 Nov 15 j 09:12	16° \mathbb{M} 31'59			1412 Feb 06 j 13:01	30° \mathbb{R} \mathbb{Q}	
desc. node	1406 Nov 30 j 22:12	27° \mathbb{M} 30'57		opposition	1412 Feb 09 j 12:28	28° \mathbb{Q} 49'20	4°26'21
	1406 Dec 04 j 09:46	0° \mathbb{Z}		greatest brilliancy	1412 Feb 09 j 18:24	28° \mathbb{Q} 43'27	-1.2m
	1407 Jan 14 j 14:18	0° \mathbb{Z}		min. Earth dist.	1412 Feb 10 j 23:07	28° \mathbb{Q} 14'53	0.67550 AU
	1407 Feb 23 j 12:45	0° \approx		direct	1412 Mar 21 j 15:40	18° \mathbb{Q} 52'35	
	1407 Apr 03 j 20:26	0° \mathbb{H}			1412 May 08 j 19:55	0° \mathbb{M}	
	1407 May 13 j 12:02	0° \mathbb{Y}			1412 Jul 06 j 22:40	0° \mathbb{A}	
	1407 Jun 23 j 22:56	0° \mathbb{B}		desc. node	1412 Jul 22 j 18:59	9° \mathbb{A} 33'12	
	1407 Aug 09 j 09:38	0° \mathbb{II}			1412 Aug 23 j 12:11	0° \mathbb{M}	
asc. node	1407 Sep 30 j 12:06	23° \mathbb{II} 30'45			1412 Oct 05 j 08:51	0° \mathbb{Z}	
retrograde	1407 Oct 22 j 11:34	26° \mathbb{II} 36'04			1412 Nov 14 j 09:57	0° \mathbb{Z}	
min. Earth dist.	1407 Nov 24 j 12:37	19° \mathbb{II} 14'49	0.57689 AU		1412 Dec 22 j 21:24	0° \approx	
opposition	1407 Nov 30 j 16:10	16° \mathbb{II} 49'55	2°38'07	evening set	1413 Jan 12 j 17:00	16° \approx 26'50	
greatest brilliancy	1407 Nov 29 j 18:59	17° \mathbb{II} 10'45	-1.7m		1413 Jan 29 j 20:54	0° \mathbb{H}	
direct	1408 Jan 06 j 07:32	8° \mathbb{II} 26'37			1413 Mar 09 j 07:49	0° \mathbb{Y}	
	1408 Mar 17 j 20:00	0° \mathbb{S}					
	1408 May 13 j 05:25	0° \mathbb{Q}		conjunction	1413 Mar 21 j 12:13	9° \mathbb{Y} 19'20	0°-38'-1
	1408 Jul 02 j 19:13	0° \mathbb{M}		minimum elong	1413 Mar 21 j 15:05	9° \mathbb{Y} 24'46	0°38'00
	1408 Aug 19 j 05:31	0° \mathbb{A}			1413 Apr 18 j 02:07	0° \mathbb{B}	
evening set	1408 Sep 21 j 22:48	22° \mathbb{A} 27'07		max. Earth dist.	1413 May 10 j 02:21	16° \mathbb{B} 02'07	2.45053 AU
	1408 Oct 02 j 23:10	0° \mathbb{M}		asc. node	1413 May 22 j 09:10	24° \mathbb{B} 47'40	
max. Earth dist.	1408 Oct 07 j 15:56	3° \mathbb{M} 15'06	2.51678 AU	morning rise	1413 May 24 j 21:57	26° \mathbb{B} 35'03	
desc. node	1408 Oct 17 j 21:50	10° \mathbb{M} 24'41			1413 May 29 j 18:30	0° \mathbb{II}	

	1413 Jul 12 j 18:15	0°☿			1419 Jan 01 j 08:40	0°♊		
	1413 Aug 28 j 08:39	0°♈		asc. node	1419 Jan 12 j 05:56	7°♊29'42		
	1413 Oct 17 j 12:55	0°♉			1419 Feb 14 j 03:56	0°♈		
	1413 Dec 16 j 01:40	0°♊			1419 Mar 30 j 23:35	0°♈		
retrograde	1414 Feb 05 j 18:02	12°♊27'52			1419 May 16 j 00:47	0°☿		
opposition	1414 Mar 16 j 02:37	3°♊46'18	3°09'57	evening set	1419 Jun 24 j 09:58	25°☿11'33		
greatest brilliancy	1414 Mar 16 j 22:22	3°♊27'15	-1.4m		1419 Jul 01 j 23:19	0°♈		
min. Earth dist.	1414 Mar 21 j 08:33	1°♊44'52	0.62667 AU	max. Earth dist.	1419 Aug 06 j 15:21	22°♈40'20	2.67559 AU	
	1414 Mar 26 j 00:52	30°♉						
direct	1414 Apr 26 j 07:56	23°♉48'13		conjunction	1419 Aug 09 j 20:26	24°♈42'57	1°08'15	
	1414 May 29 j 22:45	0°♊		minimum elong	1419 Aug 09 j 20:46	24°♈43'29	1°08'15	
desc. node	1414 Jun 09 j 18:06	4°♊01'51			1419 Aug 18 j 03:29	0°♉		
	1414 Jul 29 j 18:04	0°♈		morning rise	1419 Sep 23 j 07:07	23°♉09'54		
	1414 Sep 13 j 07:34	0°♈			1419 Oct 03 j 21:07	0°♊		
	1414 Oct 24 j 06:34	0°♈			1419 Nov 18 j 18:14	0°♈		
	1414 Dec 02 j 03:57	0°♈			1420 Jan 02 j 16:49	0°♈		
	1415 Jan 09 j 11:11	0°♈		desc. node	1420 Jan 30 j 15:41	18°♈56'25		
	1415 Feb 17 j 07:01	0°♊			1420 Feb 15 j 20:40	0°♈		
evening set	1415 Mar 22 j 17:11	25°♊02'07			1420 Mar 30 j 17:23	0°♈		
	1415 Mar 29 j 11:46	0°♈			1420 May 14 j 18:10	0°♈		
asc. node	1415 Apr 09 j 07:57	7°♈52'00			1420 Jul 07 j 14:28	0°♊		
	1415 May 10 j 13:58	0°♈		retrograde	1420 Aug 14 j 04:00	8°♊51'20		
				min. Earth dist.	1420 Sep 09 j 18:44	4°♊17'15	0.40342 AU	
conjunction	1415 May 20 j 08:16	6°♈45'17	0°24'48	greatest brilliancy	1420 Sep 15 j 06:32	2°♊36'35	-2.7m	
minimum elong	1415 May 20 j 06:59	6°♈43'04	0°24'47	opposition	1420 Sep 16 j 13:13	2°♊13'03	-4°-21'-39	
max. Earth dist.	1415 Jun 18 j 08:13	26°♈24'30	2.57504 AU		1420 Sep 24 j 03:49	30°♉		
	1415 Jun 23 j 17:39	0°☿		direct	1420 Oct 17 j 00:10	26°♈38'26		
morning rise	1415 Jul 12 j 02:01	12°☿05'23			1420 Nov 09 j 13:16	0°♊		
	1415 Aug 08 j 19:22	0°♈		asc. node	1420 Nov 29 j 04:45	6°♊47'31		
	1415 Sep 25 j 15:07	0°♉			1421 Jan 14 j 13:16	0°♈		
	1415 Nov 14 j 15:10	0°♊			1421 Mar 06 j 13:56	0°♈		
	1416 Jan 08 j 20:46	0°♈			1421 Apr 24 j 15:46	0°☿		
retrograde	1416 Mar 22 j 21:49	22°♈40'31			1421 Jun 12 j 03:51	0°♈		
desc. node	1416 Apr 26 j 16:59	15°♈33'34			1421 Jul 29 j 23:06	0°♉		
opposition	1416 Apr 27 j 06:51	15°♈21'15	0°-1'-40	evening set	1421 Jul 30 j 22:05	0°♉36'28		
greatest brilliancy	1417 Oct 30 j 16:16	4°♈48'49	4.3m	max. Earth dist.	1421 Aug 29 j 05:47	19°♉23'13	2.64466 AU	
min. Earth dist.	1416 May 05 j 11:38	12°♈26'41	0.51788 AU					
direct	1416 Jun 05 j 04:38	6°♈23'43		conjunction	1421 Sep 14 j 12:35	29°♉58'44	0°48'53	
	1416 Aug 12 j 13:27	0°♈		minimum elong	1421 Sep 14 j 13:45	0°♊00'38	0°48'53	
	1416 Sep 27 j 18:28	0°♈			1421 Sep 14 j 13:21	0°♊		
	1416 Nov 07 j 16:57	0°♈		morning rise	1421 Oct 29 j 22:47	0°♈16'25		
	1416 Dec 17 j 06:42	0°♈			1421 Oct 29 j 13:07	0°♈		
	1417 Jan 26 j 03:50	0°♊			1421 Dec 11 j 19:54	0°♈		
asc. node	1417 Feb 24 j 06:30	21°♊20'15		desc. node	1421 Dec 17 j 14:58	4°♈06'16		
	1417 Mar 08 j 07:53	0°♈			1422 Jan 22 j 13:14	0°♈		
	1417 Apr 20 j 06:37	0°♈			1422 Mar 04 j 01:57	0°♈		
evening set	1417 May 13 j 13:54	15°♈45'23			1422 Apr 13 j 01:00	0°♈		
	1417 Jun 04 j 01:11	0°☿			1422 May 23 j 12:09	0°♊		
					1422 Jul 05 j 14:58	0°♈		
conjunction	1417 Jul 02 j 22:54	18°☿50'34	1°01'31		1422 Aug 28 j 08:42	0°♈		
minimum elong	1417 Jul 02 j 21:48	18°☿48'47	1°01'29	retrograde	1422 Oct 06 j 05:51	9°♈08'45		
max. Earth dist.	1417 Jul 14 j 03:30	26°☿03'26	2.65243 AU	asc. node	1422 Oct 17 j 03:02	8°♈15'57		
	1417 Jul 20 j 06:51	0°♈		min. Earth dist.	1422 Nov 06 j 03:46	2°♈34'34	0.53019 AU	
morning rise	1417 Aug 18 j 14:36	18°♈42'29			1422 Nov 12 j 22:08	30°♉		
	1417 Sep 05 j 10:08	0°♉		opposition	1422 Nov 13 j 12:40	29°♈46'07	1°20'05	
	1417 Oct 23 j 00:10	0°♊		greatest brilliancy	1422 Nov 12 j 22:33	29°♈59'36	-2.0m	
	1417 Dec 10 j 01:38	0°♈		direct	1422 Dec 18 j 15:44	21°♈59'16		
	1418 Jan 28 j 12:10	0°♈			1423 Jan 26 j 19:04	0°♈		
desc. node	1418 Mar 14 j 15:32	25°♈17'22			1423 Mar 31 j 04:11	0°☿		
	1418 Mar 23 j 23:05	0°♈			1423 May 22 j 18:18	0°♈		
retrograde	1418 May 29 j 03:36	20°♈00'10			1423 Jul 11 j 04:19	0°♉		
opposition	1418 Jun 28 j 22:05	14°♈45'41	-5°-42'-47		1423 Aug 27 j 05:30	0°♊		
greatest brilliancy	1418 Jun 30 j 06:28	14°♈22'46	-2.7m	evening set	1423 Sep 06 j 22:54	7°♈03'19		
min. Earth dist.	1418 Jul 04 j 04:01	13°♈16'51	0.39390 AU	max. Earth dist.	1423 Sep 25 j 16:22	19°♈34'57	2.56176 AU	
direct	1418 Jul 31 j 06:45	8°♈51'36			1423 Oct 10 j 22:47	0°♈		
	1418 Oct 01 j 18:21	0°♈						
	1418 Nov 18 j 11:18	0°♈		conjunction	1423 Oct 24 j 21:04	9°♈40'00	0°06'28	

minimum elong	1423 Oct 24 j 21:21	9° \mathbb{M} 40'29	0°06'28	opposition	1429 Mar 01 j 18:51	19° \mathbb{M} 57'07	3°50'10
behind sun begin	1423 Oct 24 j 02:06	9° \mathbb{M} 06'50		greatest brilliancy	1429 Mar 02 j 10:49	19° \mathbb{M} 41'29	-1.3m
behind sun end	1423 Oct 25 j 16:37	10° \mathbb{M} 14'11		min. Earth dist.	1429 Mar 05 j 13:24	18° \mathbb{M} 28'27	0.65353 AU
desc. node	1423 Nov 04 j 13:22	17° \mathbb{M} 11'12		direct	1429 Apr 12 j 04:11	9° \mathbb{M} 55'03	
	1423 Nov 22 j 11:03	0° \mathbb{Z}			1429 Jun 18 j 02:27	0° \mathbb{Z}	
morning rise	1423 Dec 14 j 18:00	16° \mathbb{Z} 18'21		desc. node	1429 Jun 26 j 09:32	4° \mathbb{Z} 15'44	
	1424 Jan 02 j 02:25	0° \mathbb{Z}			1429 Aug 09 j 01:23	0° \mathbb{M}	
	1424 Feb 10 j 10:00	0° \approx			1429 Sep 22 j 02:45	0° \mathbb{Z}	
	1424 Mar 20 j 02:50	0° \mathbb{H}			1429 Nov 01 j 13:45	0° \mathbb{Z}	
	1424 Apr 28 j 01:42	0° \mathbb{Y}			1429 Dec 10 j 05:20	0° \approx	
	1424 Jun 07 j 08:42	0° \mathbb{B}			1430 Jan 17 j 08:00	0° \mathbb{H}	
	1424 Jul 20 j 13:20	0° \mathbb{II}			1430 Feb 24 j 22:48	0° \mathbb{Y}	
asc. node	1424 Sep 03 j 03:01	27° \mathbb{II} 06'19		evening set	1430 Feb 25 j 10:38	0° \mathbb{Y} 22'39	
	1424 Sep 08 j 12:56	0° \mathbb{S}			1430 Apr 05 j 21:50	0° \mathbb{B}	
retrograde	1424 Nov 13 j 12:39	20° \mathbb{S} 57'00		asc. node	1430 Apr 25 j 23:55	14° \mathbb{B} 34'51	
min. Earth dist.	1424 Dec 19 j 12:59	12° \mathbb{S} 34'03	0.63355 AU				
opposition	1424 Dec 23 j 11:47	10° \mathbb{S} 59'06	3°54'36	conjunction	1430 Apr 29 j 09:26	17° \mathbb{B} 00'43	0°02'11
greatest brilliancy	1424 Dec 22 j 16:49	11° \mathbb{S} 18'07	-1.4m	minimum elong	1430 Apr 29 j 09:15	17° \mathbb{B} 00'24	0°02'10
direct	1425 Jan 31 j 01:20	1° \mathbb{S} 53'49		behind sun begin	1430 Apr 28 j 08:30	16° \mathbb{B} 16'10	
	1425 Apr 26 j 13:47	0° \mathbb{Q}		behind sun end	1430 Apr 30 j 10:01	17° \mathbb{B} 44'34	
	1425 Jun 19 j 15:21	0° \mathbb{M}			1430 May 17 j 18:39	0° \mathbb{II}	
	1425 Aug 07 j 04:10	0° \mathbb{Z}		max. Earth dist.	1430 Jun 05 j 19:55	13° \mathbb{II} 10'12	2.53094 AU
desc. node	1425 Sep 21 j 12:01	0° \mathbb{M} 12'26		morning rise	1430 Jun 25 j 00:23	26° \mathbb{II} 08'53	
	1425 Sep 21 j 04:48	0° \mathbb{M}			1430 Jun 30 j 18:56	0° \mathbb{S}	
evening set	1425 Oct 19 j 22:32	20° \mathbb{M} 13'11			1430 Aug 15 j 22:42	0° \mathbb{Q}	
	1425 Nov 02 j 10:39	0° \mathbb{Z}			1430 Oct 03 j 08:40	0° \mathbb{M}	
max. Earth dist.	1425 Nov 04 j 17:51	1° \mathbb{Z} 40'59	2.43864 AU		1430 Nov 24 j 08:23	0° \mathbb{Z}	
	1425 Dec 12 j 13:02	0° \mathbb{Z}			1431 Jan 29 j 03:57	0° \mathbb{M}	
				retrograde	1431 Mar 04 j 06:55	5° \mathbb{M} 59'21	
conjunction	1425 Dec 14 j 04:51	1° \mathbb{Z} 16'06	0°-47'-34		1431 Apr 04 j 14:52	30° \mathbb{R} \mathbb{Z}	
minimum elong	1425 Dec 14 j 02:38	1° \mathbb{Z} 11'51	0°47'33	opposition	1431 Apr 10 j 00:44	28° \mathbb{Z} 02'28	1°30'32
	1426 Jan 20 j 06:09	0° \approx		greatest brilliancy	1431 Apr 10 j 16:02	27° \mathbb{Z} 48'15	-1.7m
morning rise	1426 Feb 16 j 05:26	21° \approx 11'51		min. Earth dist.	1431 Apr 17 j 07:10	25° \mathbb{Z} 20'44	0.56627 AU
	1426 Feb 27 j 10:05	0° \mathbb{H}		desc. node	1431 May 14 j 08:36	18° \mathbb{Z} 43'55	
	1426 Apr 06 j 21:54	0° \mathbb{Y}		direct	1431 May 20 j 05:40	18° \mathbb{Z} 29'50	
	1426 May 16 j 14:54	0° \mathbb{B}			1431 Jul 05 j 06:40	0° \mathbb{M}	
	1426 Jun 27 j 10:31	0° \mathbb{II}			1431 Aug 27 j 12:47	0° \mathbb{Z}	
asc. node	1426 Jul 22 j 02:44	16° \mathbb{II} 45'58			1431 Oct 09 j 10:39	0° \mathbb{Z}	
	1426 Aug 11 j 11:39	0° \mathbb{S}			1431 Nov 18 j 04:45	0° \approx	
	1426 Oct 01 j 13:35	0° \mathbb{Q}			1431 Dec 27 j 01:47	0° \mathbb{H}	
retrograde	1426 Dec 18 j 06:30	25° \mathbb{Q} 36'50			1432 Feb 04 j 09:41	0° \mathbb{Y}	
opposition	1427 Jan 27 j 08:11	15° \mathbb{Q} 54'11	4°33'31	asc. node	1432 Mar 12 j 23:13	27° \mathbb{Y} 45'01	
greatest brilliancy	1427 Jan 27 j 06:26	15° \mathbb{Q} 55'56	-1.2m		1432 Mar 16 j 01:52	0° \mathbb{B}	
min. Earth dist.	1427 Jan 27 j 06:04	15° \mathbb{Q} 56'18	0.67654 AU	evening set	1432 Apr 24 j 18:50	28° \mathbb{B} 03'20	
direct	1427 Mar 09 j 00:10	6° \mathbb{Q} 06'41			1432 Apr 27 j 14:25	0° \mathbb{II}	
	1427 May 24 j 16:28	0° \mathbb{M}			1432 Jun 11 j 01:12	0° \mathbb{S}	
	1427 Jul 17 j 02:13	0° \mathbb{Z}					
desc. node	1427 Aug 09 j 10:53	14° \mathbb{Z} 43'11		conjunction	1432 Jun 16 j 18:56	3° \mathbb{S} 47'14	0°51'03
	1427 Sep 01 j 11:44	0° \mathbb{M}		minimum elong	1432 Jun 16 j 17:26	3° \mathbb{S} 44'45	0°51'02
	1427 Oct 14 j 00:27	0° \mathbb{Z}		max. Earth dist.	1432 Jul 04 j 08:34	15° \mathbb{S} 17'04	2.62843 AU
	1427 Nov 22 j 23:49	0° \mathbb{Z}			1432 Jul 27 j 03:29	0° \mathbb{Q}	
evening set	1427 Dec 17 j 04:42	18° \mathbb{Z} 47'10		morning rise	1432 Aug 04 j 06:05	5° \mathbb{Q} 11'27	
	1427 Dec 31 j 11:08	0° \approx			1432 Sep 12 j 10:23	0° \mathbb{M}	
	1428 Feb 07 j 10:21	0° \mathbb{H}			1432 Oct 30 j 16:12	0° \mathbb{Z}	
					1432 Dec 19 j 10:04	0° \mathbb{M}	
conjunction	1428 Feb 22 j 01:52	11° \mathbb{H} 31'16	0°-58'-2		1433 Feb 11 j 12:43	0° \mathbb{Z}	
minimum elong	1428 Feb 22 j 04:31	11° \mathbb{H} 36'29	0°58'02	desc. node	1433 Mar 31 j 08:07	20° \mathbb{Z} 01'57	
	1428 Mar 16 j 19:59	0° \mathbb{Y}		retrograde	1433 Apr 29 j 11:42	24° \mathbb{Z} 39'36	
max. Earth dist.	1428 Apr 11 j 08:31	19° \mathbb{Y} 26'35	2.39779 AU	opposition	1433 Jun 01 j 02:33	18° \mathbb{Z} 36'27	-3°-22'-15
	1428 Apr 25 j 12:08	0° \mathbb{B}		greatest brilliancy	1433 Jun 02 j 10:57	18° \mathbb{Z} 10'57	-2.4m
morning rise	1428 May 01 j 03:01	4° \mathbb{B} 08'36		min. Earth dist.	1433 Jun 09 j 01:58	16° \mathbb{Z} 06'36	0.43674 AU
	1428 Jun 06 j 02:53	0° \mathbb{II}		direct	1433 Jul 06 j 13:02	11° \mathbb{Z} 18'41	
asc. node	1428 Jun 08 j 00:47	1° \mathbb{II} 20'24			1433 Sep 02 j 10:38	0° \mathbb{Z}	
	1428 Jul 20 j 04:18	0° \mathbb{S}			1433 Oct 19 j 20:21	0° \approx	
	1428 Sep 05 j 07:18	0° \mathbb{Q}			1433 Dec 01 j 00:46	0° \mathbb{H}	
	1428 Oct 27 j 13:32	0° \mathbb{M}			1434 Jan 11 j 13:18	0° \mathbb{Y}	
retrograde	1429 Jan 21 j 17:01	29° \mathbb{M} 00'37		asc. node	1434 Jan 28 j 21:04	12° \mathbb{Y} 22'24	

	1434 Feb 22 j 22:22	0°♄				1439 Jan 09 j 15:27	0°♄		
	1434 Apr 07 j 19:21	0°♂				1439 Feb 18 j 08:00	0°♁		
	1434 May 23 j 05:33	0°♂				1439 Mar 29 j 09:28	0°♂		
evening set	1434 Jun 08 j 23:42	10°♂51'22				1439 May 07 j 17:20	0°♄		
	1434 Jul 08 j 19:38	0°♂				1439 Jun 17 j 14:11	0°♄		
						1439 Aug 01 j 07:24	0°♂		
conjunction	1434 Jul 26 j 13:13	11°♂18'36	1°08'55	asc. node		1439 Sep 20 j 19:02	26°♂51'47		
minimum elong	1434 Jul 26 j 13:01	11°♂18'17	1°08'54			1439 Sep 29 j 00:52	0°♂		
max. Earth dist.	1434 Jul 28 j 19:21	12°♂44'47	2.67311 AU	retrograde		1439 Oct 31 j 03:18	6°♂09'05		
	1434 Aug 24 j 21:49	0°♄				1439 Nov 30 j 03:37	30°♂♂		
morning rise	1434 Sep 09 j 11:24	9°♄55'12		min. Earth dist.		1439 Dec 04 j 07:17	28°♂24'18	0.59957 AU	
	1434 Oct 10 j 20:58	0°♂		opposition		1439 Dec 09 j 16:45	26°♂15'51	3°12'09	
	1434 Nov 26 j 09:24	0°♂		greatest brilliancy		1439 Dec 08 j 18:53	26°♂37'34	-1.6m	
	1435 Jan 11 j 12:28	0°♄		direct		1440 Jan 16 j 01:52	17°♂35'52		
desc. node	1435 Feb 16 j 07:04	23°♄15'56				1440 Mar 07 j 09:48	0°♂		
	1435 Feb 26 j 17:03	0°♄				1440 May 07 j 01:41	0°♂		
	1435 Apr 15 j 08:11	0°♁				1440 Jun 27 j 15:41	0°♄		
	1435 Jun 11 j 04:59	0°♂				1440 Aug 14 j 10:41	0°♂		
retrograde	1435 Jul 18 j 08:03	8°♂10'11				1440 Sep 28 j 07:14	0°♂		
min. Earth dist.	1435 Aug 15 j 08:58	3°♂35'19	0.37582 AU	evening set		1440 Oct 01 j 15:32	2°♂18'45		
opposition	1435 Aug 18 j 02:56	2°♂50'38	-6°-30'-12	desc. node		1440 Oct 08 j 03:35	6°♂50'06		
greatest brilliancy	1435 Aug 17 j 12:15	3°♂00'35	-2.9m	max. Earth dist.		1440 Oct 16 j 13:08	12°♂43'57	2.48993 AU	
	1435 Aug 29 j 09:23	30°♂♁				1440 Nov 09 j 14:52	0°♄		
direct	1435 Sep 16 j 16:02	27°♂54'23							
	1435 Oct 04 j 17:48	0°♂		conjunction		1440 Nov 22 j 06:13	9°♄16'20	0°-27'-12	
	1435 Dec 10 j 10:13	0°♄		minimum elong		1440 Nov 22 j 04:52	9°♄13'49	0°27'12	
asc. node	1435 Dec 16 j 20:19	3°♄45'23				1440 Dec 19 j 21:39	0°♄		
	1436 Jan 28 j 14:11	0°♄		morning rise		1441 Jan 19 j 05:37	23°♄19'28		
	1436 Mar 16 j 00:38	0°♂				1441 Jan 27 j 19:27	0°♁		
	1436 May 02 j 12:55	0°♂				1441 Mar 07 j 03:11	0°♂		
	1436 Jun 19 j 06:39	0°♂				1441 Apr 14 j 17:39	0°♄		
evening set	1436 Jul 16 j 13:49	17°♂12'08				1441 May 24 j 13:14	0°♄		
	1436 Aug 05 j 18:11	0°♄				1441 Jul 05 j 15:33	0°♂		
max. Earth dist.	1436 Aug 19 j 19:47	8°♄58'57	2.66307 AU	asc. node		1441 Aug 07 j 17:52	21°♂55'55		
						1441 Aug 20 j 16:00	0°♂		
conjunction	1436 Aug 31 j 03:53	16°♄15'51	0°59'17			1441 Oct 15 j 13:14	0°♂		
minimum elong	1436 Aug 31 j 04:52	16°♄17'27	0°59'17	retrograde		1441 Dec 04 j 22:41	12°♂44'14		
	1436 Sep 21 j 08:19	0°♂		min. Earth dist.		1442 Jan 12 j 12:14	3°♂30'55	0.66757 AU	
morning rise	1436 Oct 14 j 18:53	15°♂25'00		opposition		1442 Jan 14 j 02:56	2°♂52'05	4°28'54	
	1436 Nov 05 j 14:36	0°♂		greatest brilliancy		1442 Jan 13 j 17:36	3°♂01'27	-1.3m	
	1436 Dec 19 j 09:37	0°♄				1442 Jan 21 j 10:13	30°♂♂		
desc. node	1437 Jan 03 j 06:02	10°♄23'50		direct		1442 Feb 23 j 03:11	23°♂17'47		
	1437 Jan 30 j 20:09	0°♄				1442 Mar 31 j 13:29	0°♂		
	1437 Mar 13 j 05:40	0°♁				1442 Jun 04 j 15:51	0°♄		
	1437 Apr 23 j 06:09	0°♂				1442 Jul 25 j 09:28	0°♂		
	1437 Jun 04 j 08:36	0°♄		desc. node		1442 Aug 26 j 02:16	20°♂32'26		
	1437 Jul 21 j 23:12	0°♄				1442 Sep 09 j 02:07	0°♂		
retrograde	1437 Sep 17 j 23:37	18°♄51'18				1442 Oct 21 j 10:39	0°♄		
min. Earth dist.	1437 Oct 16 j 16:41	13°♄09'09	0.47832 AU	evening set		1442 Nov 22 j 06:05	23°♄44'56		
opposition	1437 Oct 24 j 19:57	10°♄13'49	0°-29'-27			1442 Nov 30 j 10:28	0°♄		
greatest brilliancy	1437 Oct 24 j 14:26	10°♄18'47	-2.2m			1443 Jan 07 j 23:21	0°♁		
asc. node	1437 Nov 02 j 20:19	7°♄10'00		max. Earth dist.		1443 Jan 10 j 01:46	1°♁39'14	2.37262 AU	
direct	1437 Nov 27 j 05:51	3°♄13'15							
	1438 Feb 15 j 03:59	0°♂		conjunction		1443 Jan 24 j 00:44	12°♁39'48	-1°-4'-52	
	1438 Apr 10 j 05:44	0°♂		minimum elong		1443 Jan 24 j 00:33	12°♁39'27	1°04'54	
	1438 May 30 j 16:23	0°♂				1443 Feb 14 j 23:39	0°♂		
	1438 Jul 18 j 07:21	0°♄				1443 Mar 25 j 09:14	0°♄		
evening set	1438 Aug 22 j 19:49	22°♄39'01		morning rise		1443 Apr 04 j 12:45	7°♄47'45		
	1438 Sep 03 j 02:40	0°♂				1443 May 04 j 00:18	0°♄		
max. Earth dist.	1438 Sep 14 j 07:03	7°♂21'41	2.59996 AU	asc. node		1443 Jun 14 j 14:42	0°♂		
						1443 Jun 25 j 17:36	7°♂43'59		
conjunction	1438 Oct 08 j 09:37	23°♂31'16	0°25'19			1443 Jul 28 j 20:34	0°♂		
minimum elong	1438 Oct 08 j 10:30	23°♂32'47	0°25'19			1443 Sep 14 j 20:34	0°♂		
	1438 Oct 17 j 21:30	0°♂				1443 Nov 10 j 03:22	0°♄		
desc. node	1438 Nov 21 j 04:59	23°♂58'01		retrograde		1444 Jan 08 j 13:05	16°♄03'49		
morning rise	1438 Nov 25 j 09:51	26°♂57'46		opposition		1444 Feb 17 j 03:34	6°♄42'13	4°16'34	
	1438 Nov 29 j 15:41	0°♄		greatest brilliancy		1444 Feb 17 j 13:24	6°♄32'28	-1.2m	

min. Earth dist.	1444 Feb 19 j 10:00	5° \mathbb{M} 48'21	0.67052 AU		1449 Apr 15 j 09:31	0° \mathbb{I}	
	1444 Mar 06 j 19:42	30° \mathbb{R} \mathbb{Q}		evening set	1449 May 23 j 13:05	25° \mathbb{I} 32'03	
direct	1444 Mar 29 j 10:29	26° \mathbb{Q} 42'12			1449 May 30 j 08:00	0° \mathbb{S}	
	1444 Apr 22 j 22:29	0° \mathbb{M}					
	1444 Jun 30 j 08:26	0° \mathbb{A}		conjunction	1449 Jul 11 j 18:20	27° \mathbb{S} 30'22	1°05'29
desc. node	1444 Jul 13 j 02:01	7° \mathbb{A} 21'49		minimum elong	1449 Jul 11 j 17:34	27° \mathbb{S} 29'07	1°05'28
	1444 Aug 18 j 02:06	0° \mathbb{M}			1449 Jul 15 j 15:39	0° \mathbb{Q}	
	1444 Sep 30 j 07:30	0° \mathbb{X}		max. Earth dist.	1449 Jul 19 j 15:49	2° \mathbb{Q} 34'01	2.66207 AU
	1444 Nov 09 j 11:45	0° \mathbb{Z}		morning rise	1449 Aug 26 j 15:48	26° \mathbb{Q} 46'36	
	1444 Dec 18 j 00:11	0° \mathbb{X}			1449 Aug 31 j 17:40	0° \mathbb{M}	
greatest brilliancy	1445 Jan 08 j 14:24	17° \mathbb{X} 02'53	1.2m		1449 Oct 18 j 01:20	0° \mathbb{A}	
	1445 Jan 25 j 00:15	0° \mathbb{X}			1449 Dec 04 j 10:59	0° \mathbb{M}	
evening set	1445 Jan 28 j 19:44	3° \mathbb{X} 00'00			1450 Jan 21 j 09:01	0° \mathbb{X}	
	1445 Mar 04 j 11:52	0° \mathbb{Y}		desc. node	1450 Mar 04 j 22:31	25° \mathbb{X} 41'31	
					1450 Mar 12 j 09:09	0° \mathbb{Z}	
conjunction	1445 Apr 05 j 12:30	24° \mathbb{Y} 14'36	0°-23'-30		1450 May 12 j 12:19	0° \mathbb{X}	
minimum elong	1445 Apr 05 j 14:19	24° \mathbb{Y} 17'59	0°23'29	retrograde	1450 Jun 16 j 06:26	6° \mathbb{X} 46'58	
	1445 Apr 13 j 06:56	0° \mathbb{X}		opposition	1450 Jul 16 j 11:50	1° \mathbb{X} 48'03	-6°-37'-35
asc. node	1445 May 12 j 15:19	21° \mathbb{X} 16'13		greatest brilliancy	1450 Jul 17 j 07:02	1° \mathbb{X} 35'10	-2.8m
max. Earth dist.	1445 May 21 j 09:25	27° \mathbb{X} 28'03	2.48064 AU	min. Earth dist.	1450 Jul 19 j 03:35	1° \mathbb{X} 05'21	0.37898 AU
	1445 May 24 j 23:57	0° \mathbb{I}			1450 Jul 23 j 07:49	30° \mathbb{R} \mathbb{Z}	
morning rise	1445 Jun 05 j 22:58	8° \mathbb{I} 19'25		direct	1450 Aug 16 j 03:59	26° \mathbb{Z} 32'09	
	1445 Jul 07 j 22:34	0° \mathbb{S}			1450 Sep 08 j 08:59	0° \mathbb{X}	
	1445 Aug 23 j 07:15	0° \mathbb{Q}			1450 Nov 08 j 13:37	0° \mathbb{X}	
	1445 Oct 11 j 15:17	0° \mathbb{M}			1450 Dec 25 j 02:24	0° \mathbb{Y}	
	1445 Dec 06 j 04:32	0° \mathbb{A}		asc. node	1451 Jan 02 j 13:04	5° \mathbb{Y} 36'41	
retrograde	1446 Feb 14 j 21:33	20° \mathbb{A} 57'33			1451 Feb 08 j 03:07	0° \mathbb{X}	
opposition	1446 Mar 24 j 17:57	12° \mathbb{A} 30'00	2°38'54		1451 Mar 25 j 15:28	0° \mathbb{I}	
greatest brilliancy	1446 Mar 25 j 13:47	12° \mathbb{A} 11'04	-1.5m		1451 May 11 j 02:32	0° \mathbb{S}	
min. Earth dist.	1446 Mar 30 j 17:57	10° \mathbb{A} 12'40	0.60785 AU		1451 Jun 27 j 06:40	0° \mathbb{Q}	
direct	1446 May 04 j 17:22	2° \mathbb{A} 37'44		evening set	1451 Jul 02 j 23:21	3° \mathbb{Q} 36'38	
desc. node	1446 May 31 j 00:58	6° \mathbb{A} 37'51		max. Earth dist.	1451 Aug 11 j 21:15	28° \mathbb{Q} 57'03	2.67337 AU
	1446 Jul 22 j 02:55	0° \mathbb{M}			1451 Aug 13 j 12:46	0° \mathbb{M}	
	1446 Sep 07 j 07:57	0° \mathbb{X}					
	1446 Oct 18 j 19:41	0° \mathbb{Z}		conjunction	1451 Aug 17 j 23:46	2° \mathbb{M} 50'36	1°06'02
	1446 Nov 26 j 22:41	0° \mathbb{X}		minimum elong	1451 Aug 18 j 00:24	2° \mathbb{M} 51'36	1°06'02
	1447 Jan 04 j 09:24	0° \mathbb{X}			1451 Sep 29 j 04:50	0° \mathbb{A}	
	1447 Feb 12 j 08:07	0° \mathbb{Y}		morning rise	1451 Oct 01 j 08:47	1° \mathbb{A} 24'24	
	1447 Mar 24 j 15:24	0° \mathbb{X}			1451 Nov 13 j 20:16	0° \mathbb{M}	
asc. node	1447 Mar 30 j 14:15	4° \mathbb{X} 19'14			1451 Dec 28 j 07:50	0° \mathbb{X}	
evening set	1447 Apr 04 j 19:39	8° \mathbb{X} 05'17		desc. node	1452 Jan 20 j 21:54	16° \mathbb{X} 12'34	
	1447 May 05 j 19:56	0° \mathbb{I}			1452 Feb 09 j 18:27	0° \mathbb{Z}	
					1452 Mar 23 j 12:06	0° \mathbb{X}	
conjunction	1447 May 31 j 05:49	17° \mathbb{I} 24'25	0°35'52		1452 May 05 j 11:18	0° \mathbb{X}	
minimum elong	1447 May 31 j 04:16	17° \mathbb{I} 21'47	0°35'51		1452 Jun 20 j 17:08	0° \mathbb{Y}	
	1447 Jun 19 j 00:56	0° \mathbb{S}		retrograde	1452 Aug 27 j 20:43	24° \mathbb{Y} 48'52	
max. Earth dist.	1447 Jun 24 j 23:17	3° \mathbb{S} 55'42	2.59635 AU	min. Earth dist.	1452 Sep 23 j 18:34	19° \mathbb{Y} 56'19	0.42741 AU
morning rise	1447 Jul 21 j 05:11	21° \mathbb{S} 04'52		opposition	1452 Oct 01 j 14:51	17° \mathbb{Y} 22'48	-2°-52'-11
	1447 Aug 04 j 01:46	0° \mathbb{Q}		greatest brilliancy	1452 Sep 30 j 12:57	17° \mathbb{Y} 44'01	-2.5m
	1447 Sep 20 j 15:12	0° \mathbb{M}		direct	1452 Nov 02 j 02:31	11° \mathbb{Y} 17'29	
	1447 Nov 08 j 20:04	0° \mathbb{A}		asc. node	1452 Nov 19 j 11:35	13° \mathbb{Y} 09'59	
	1447 Dec 31 j 08:26	0° \mathbb{M}			1453 Jan 03 j 16:59	0° \mathbb{X}	
	1448 Mar 09 j 13:16	0° \mathbb{X}			1453 Feb 27 j 18:32	0° \mathbb{I}	
retrograde	1448 Apr 04 j 07:53	3° \mathbb{X} 38'18			1453 Apr 19 j 03:17	0° \mathbb{S}	
desc. node	1448 Apr 16 j 23:10	2° \mathbb{X} 38'17			1453 Jun 07 j 05:13	0° \mathbb{Q}	
	1448 Apr 28 j 15:58	30° \mathbb{R} \mathbb{M}			1453 Jul 25 j 06:38	0° \mathbb{M}	
opposition	1448 May 08 j 20:37	26° \mathbb{M} 43'45	-1°-7'-9	evening set	1453 Aug 08 j 04:39	8° \mathbb{M} 50'32	
greatest brilliancy	1448 May 09 j 09:40	26° \mathbb{M} 32'33	-2.1m	max. Earth dist.	1453 Sep 03 j 21:55	26° \mathbb{M} 03'56	2.63077 AU
min. Earth dist.	1448 May 17 j 07:48	23° \mathbb{M} 49'59	0.48907 AU		1453 Sep 09 j 22:31	0° \mathbb{A}	
direct	1448 Jun 15 j 17:58	18° \mathbb{M} 15'09					
	1448 Jul 30 j 19:40	0° \mathbb{X}		conjunction	1453 Sep 23 j 00:23	8° \mathbb{A} 36'27	0°41'11
	1448 Sep 20 j 00:25	0° \mathbb{Z}		minimum elong	1453 Sep 23 j 01:32	8° \mathbb{A} 38'21	0°41'10
	1448 Nov 01 j 05:28	0° \mathbb{X}			1453 Oct 24 j 20:37	0° \mathbb{M}	
	1448 Dec 11 j 10:11	0° \mathbb{X}		morning rise	1453 Nov 08 j 03:45	9° \mathbb{M} 49'06	
	1449 Jan 20 j 17:27	0° \mathbb{Y}			1453 Dec 06 j 22:46	0° \mathbb{X}	
asc. node	1449 Feb 14 j 14:23	18° \mathbb{Y} 07'20		desc. node	1453 Dec 07 j 20:33	0° \mathbb{X} 38'41	
	1449 Mar 03 j 04:58	0° \mathbb{X}			1454 Jan 17 j 09:38	0° \mathbb{Z}	

	1454 Feb 26 j 14:28	0°♊			1459 May 15 j 22:18	0°♎		
	1454 Apr 07 j 04:26	0°♋			1459 Jul 11 j 05:49	0°♌		
	1454 May 17 j 02:57	0°♍		desc. node	1459 Jul 30 j 17:25	11°♌58'31		
	1454 Jun 28 j 01:49	0°♎			1459 Aug 27 j 08:23	0°♍		
	1454 Aug 15 j 08:07	0°♏			1459 Oct 09 j 02:49	0°♎		
asc. node	1454 Oct 07 j 11:31	19°♏20'09			1459 Nov 18 j 04:13	0°♏		
retrograde	1454 Oct 15 j 16:27	19°♏48'17			1459 Dec 26 j 16:01	0°♐		
min. Earth dist.	1454 Nov 16 j 19:16	12°♏47'29	0.55677 AU	evening set	1460 Jan 01 j 10:09	4°♐32'29		
opposition	1454 Nov 23 j 12:49	10°♏10'33	2°08'36		1460 Feb 02 j 15:14	0°♑		
greatest brilliancy	1454 Nov 22 j 17:16	10°♏29'35	-1.8m					
direct	1454 Dec 29 j 12:12	2°♏02'41		conjunction	1460 Mar 09 j 08:00	27°♑54'42	0°-47'-50	
	1455 Mar 23 j 14:44	0°♐		minimum elong	1460 Mar 09 j 11:12	28°♑00'53	0°47'50	
	1455 May 17 j 03:54	0°♑			1460 Mar 12 j 00:57	0°♒		
	1455 Jul 06 j 05:44	0°♒			1460 Apr 20 j 17:05	0°♓		
	1455 Aug 22 j 12:55	0°♌		max. Earth dist.	1460 Apr 29 j 13:42	6°♓31'20	2.42621 AU	
evening set	1455 Sep 15 j 22:43	16°♌08'52		morning rise	1460 May 15 j 01:02	17°♓44'30		
max. Earth dist.	1455 Oct 02 j 21:15	27°♌38'28	2.53755 AU	asc. node	1460 May 29 j 08:12	27°♓55'10		
	1455 Oct 06 j 07:39	0°♍			1460 Jun 01 j 07:10	0°♏		
desc. node	1455 Oct 25 j 19:48	13°♍35'46			1460 Jul 15 j 05:47	0°♐		
					1460 Aug 30 j 23:08	0°♑		
conjunction	1455 Nov 03 j 22:55	20°♍04'12	0°-5'-35		1460 Oct 20 j 18:47	0°♒		
minimum elong	1455 Nov 03 j 22:40	20°♍03'46	0°05'35		1460 Dec 23 j 18:45	0°♌		
behind sun begin	1455 Nov 03 j 02:20	19°♍27'33		retrograde	1461 Jan 30 j 04:34	7°♌05'37		
behind sun end	1455 Nov 04 j 18:59	20°♍40'00			1461 Mar 05 j 06:03	30°♒♎		
	1455 Nov 17 j 18:21	0°♎		opposition	1461 Mar 09 j 21:18	28°♎13'30	3°28'21	
morning rise	1455 Dec 26 j 23:43	29°♎01'36		greatest brilliancy	1461 Mar 10 j 15:37	27°♎55'42	-1.4m	
	1455 Dec 28 j 06:40	0°♏		min. Earth dist.	1461 Mar 14 j 11:13	26°♎26'41	0.63995 AU	
	1456 Feb 05 j 10:29	0°♐		direct	1461 Apr 20 j 05:10	18°♎12'48		
	1456 Mar 14 j 23:32	0°♑			1461 Jun 07 j 18:19	0°♌		
	1456 Apr 22 j 18:35	0°♒		desc. node	1461 Jun 16 j 16:11	3°♌58'55		
	1456 Jun 01 j 19:46	0°♓			1461 Aug 02 j 17:06	0°♍		
	1456 Jul 14 j 10:56	0°♏			1461 Sep 16 j 14:41	0°♎		
asc. node	1456 Aug 24 j 10:14	25°♏59'43			1461 Oct 27 j 09:08	0°♏		
	1456 Aug 31 j 08:01	0°♐			1461 Dec 05 j 04:07	0°♐		
retrograde	1456 Nov 21 j 10:41	29°♐23'09			1462 Jan 12 j 08:58	0°♑		
min. Earth dist.	1456 Dec 28 j 09:55	20°♐41'20	0.64850 AU		1462 Feb 20 j 01:50	0°♒		
opposition	1456 Dec 31 j 13:09	19°♐25'50	4°11'27	evening set	1462 Mar 12 j 01:22	15°♒07'41		
greatest brilliancy	1456 Dec 30 j 21:03	19°♐42'00	-1.4m		1462 Apr 01 j 02:50	0°♓		
direct	1457 Feb 08 j 16:47	10°♐09'05		asc. node	1462 Apr 16 j 07:28	11°♓02'23		
	1457 Apr 18 j 10:18	0°♑						
	1457 Jun 13 j 23:18	0°♒		conjunction	1462 May 11 j 14:29	28°♓59'19	0°15'41	
	1457 Aug 02 j 04:29	0°♌		minimum elong	1462 May 11 j 13:33	28°♓57'42	0°15'40	
desc. node	1457 Sep 11 j 18:57	26°♌48'15		behind sun begin	1462 May 11 j 10:18	28°♓52'01		
	1457 Sep 16 j 10:59	0°♍		behind sun end	1462 May 11 j 16:49	29°♓03'23		
	1457 Oct 28 j 18:08	0°♎			1462 May 13 j 01:14	0°♏		
evening set	1457 Oct 31 j 04:31	1°♎46'47		max. Earth dist.	1462 Jun 13 j 09:00	21°♏29'11	2.55616 AU	
max. Earth dist.	1457 Nov 19 j 02:46	15°♎49'08	2.41090 AU		1462 Jun 26 j 01:57	0°♐		
	1457 Dec 07 j 19:55	0°♏		morning rise	1462 Jul 04 j 22:59	5°♐53'03		
					1462 Aug 11 j 03:06	0°♑		
conjunction	1457 Dec 27 j 23:13	15°♏32'12	0°-56'-50		1462 Sep 28 j 03:06	0°♒		
minimum elong	1457 Dec 27 j 21:04	15°♏28'01	0°56'50		1462 Nov 17 j 19:22	0°♌		
	1458 Jan 15 j 11:24	0°♍			1463 Jan 14 j 20:53	0°♍		
	1458 Feb 22 j 13:30	0°♎		retrograde	1463 Mar 15 j 01:28	15°♍41'00		
morning rise	1458 Mar 05 j 06:05	8°♎24'08		opposition	1463 Apr 20 j 02:39	8°♍03'42	0°40'33	
	1458 Apr 01 j 23:42	0°♏		greatest brilliancy	1463 Apr 20 j 10:41	7°♍56'23	-1.9m	
	1458 May 11 j 14:46	0°♑		min. Earth dist.	1463 Apr 27 j 23:00	5°♍12'57	0.54035 AU	
	1458 Jun 22 j 06:40	0°♒		desc. node	1463 May 04 j 15:09	2°♍58'46		
asc. node	1458 Jul 12 j 08:24	13°♏47'26			1463 May 16 j 11:53	30°♒♌		
	1458 Aug 05 j 21:35	0°♐		direct	1463 May 29 j 16:12	28°♌48'09		
	1458 Sep 24 j 09:57	0°♑			1463 Jun 12 j 07:54	0°♒		
	1458 Dec 01 j 09:17	0°♒			1463 Aug 19 j 13:45	0°♓		
retrograde	1458 Dec 25 j 22:55	3°♒22'54			1463 Oct 03 j 01:33	0°♏		
	1459 Jan 17 j 16:03	30°♒♑			1463 Nov 12 j 10:05	0°♐		
opposition	1459 Feb 03 j 21:56	23°♑46'44	4°30'39		1463 Dec 21 j 15:08	0°♑		
greatest brilliancy	1459 Feb 04 j 00:26	23°♑44'15	-1.2m		1464 Jan 30 j 05:07	0°♒		
min. Earth dist.	1459 Feb 04 j 15:47	23°♑28'56	0.67733 AU	asc. node	1464 Mar 03 j 05:57	24°♒20'03		
direct	1459 Mar 16 j 20:59	13°♑53'44			1464 Mar 11 j 02:21	0°♓		

	1464 Apr 22 j 19:03	0°♂			1469 Mar 07 j 08:59	0°♂		
evening set	1464 May 05 j 17:09	8°♂49'17			1469 Apr 16 j 17:32	0°♂		
	1464 Jun 06 j 08:52	0°♂			1469 May 27 j 17:43	0°♂		
					1469 Jul 11 j 01:48	0°♂		
conjunction	1464 Jun 26 j 04:17	12°♂59'09	0°57'41		1469 Sep 15 j 06:37	0°♂		
minimum elong	1464 Jun 26 j 02:59	12°♂57'03	0°57'40	retrograde	1469 Sep 28 j 16:24	1°♂15'13		
max. Earth dist.	1464 Jul 10 j 01:59	22°♂00'15	2.64272 AU		1469 Oct 11 j 15:10	30°♂		
	1464 Jul 22 j 12:05	0°♂		asc. node	1469 Oct 24 j 02:21	26°♂38'44		
morning rise	1464 Aug 12 j 13:28	13°♂27'22		min. Earth dist.	1469 Oct 28 j 15:00	25°♂03'38	0.50742 AU	
	1464 Sep 07 j 16:05	0°♂		opposition	1469 Nov 05 j 09:51	22°♂09'22	0°37'53	
	1464 Oct 25 j 12:06	0°♂		greatest brilliancy	1469 Nov 05 j 02:21	22°♂16'23	-2.1m	
	1464 Dec 13 j 04:41	0°♂		direct	1469 Dec 09 j 18:38	14°♂41'57		
	1465 Feb 02 j 04:34	0°♂			1470 Feb 04 j 15:08	0°♂		
desc. node	1465 Mar 21 j 13:34	24°♂19'10			1470 Apr 03 j 20:06	0°♂		
	1465 Apr 04 j 08:17	0°♂			1470 May 25 j 10:06	0°♂		
retrograde	1465 May 15 j 16:33	8°♂48'29			1470 Jul 13 j 11:57	0°♂		
opposition	1465 Jun 16 j 04:23	3°♂13'49	-4°-44'-32		1470 Aug 29 j 11:28	0°♂		
greatest brilliancy	1465 Jun 17 j 16:35	2°♂46'54	-2.6m	evening set	1470 Aug 31 j 09:13	1°♂14'51		
min. Earth dist.	1465 Jun 22 j 22:52	1°♂13'28	0.41122 AU	max. Earth dist.	1470 Sep 20 j 17:17	14°♂42'39	2.57982 AU	
	1465 Jun 27 j 08:07	30°♂			1470 Oct 13 j 06:36	0°♂		
direct	1465 Jul 19 j 23:22	26°♂42'13						
	1465 Aug 11 j 04:46	0°♂		conjunction	1470 Oct 17 j 14:46	2°♂59'13	0°14'45	
	1465 Oct 10 j 06:22	0°♂		minimum elong	1470 Oct 17 j 15:21	3°♂00'12	0°14'45	
	1465 Nov 23 j 18:01	0°♂		behind sun begin	1470 Oct 17 j 06:53	2°♂45'38		
	1466 Jan 05 j 08:36	0°♂		behind sun end	1470 Oct 17 j 23:48	3°♂14'47		
asc. node	1466 Jan 19 j 05:01	9°♂43'32		desc. node	1470 Nov 11 j 11:29	20°♂22'53		
	1466 Feb 17 j 09:44	0°♂			1470 Nov 24 j 22:30	0°♂		
	1466 Apr 02 j 17:12	0°♂		morning rise	1470 Dec 06 j 01:30	8°♂03'16		
	1466 May 18 j 10:21	0°♂			1471 Jan 04 j 18:24	0°♂		
evening set	1466 Jun 17 j 21:50	19°♂36'30			1471 Feb 13 j 06:22	0°♂		
	1466 Jul 04 j 04:26	0°♂			1471 Mar 24 j 02:45	0°♂		
					1471 May 02 j 04:40	0°♂		
conjunction	1466 Aug 03 j 19:02	19°♂29'00	1°09'00		1471 Jun 11 j 15:28	0°♂		
minimum elong	1466 Aug 03 j 19:09	19°♂29'12	1°08'59		1471 Jul 25 j 06:17	0°♂		
max. Earth dist.	1466 Aug 03 j 01:03	19°♂00'24	2.67554 AU	asc. node	1471 Sep 11 j 02:05	27°♂55'10		
	1466 Aug 20 j 07:25	0°♂			1471 Sep 15 j 07:53	0°♂		
morning rise	1466 Sep 17 j 09:29	17°♂56'44		retrograde	1471 Nov 08 j 11:40	15°♂15'02		
	1466 Oct 06 j 03:34	0°♂		min. Earth dist.	1471 Dec 13 j 16:35	7°♂08'56	0.61952 AU	
	1466 Nov 21 j 07:20	0°♂		greatest brilliancy	1471 Dec 17 j 10:45	5°♂38'58	-1.5m	
	1467 Jan 05 j 17:32	0°♂		opposition	1471 Dec 18 j 07:40	5°♂18'05	3°39'19	
desc. node	1467 Feb 06 j 13:32	21°♂14'06			1472 Jan 01 j 23:10	30°♂		
	1467 Feb 19 j 16:09	0°♂		direct	1472 Jan 25 j 09:32	26°♂23'28		
	1467 Apr 05 j 19:14	0°♂			1472 Feb 20 j 02:53	0°♂		
	1467 May 23 j 14:47	0°♂			1472 Apr 30 j 09:22	0°♂		
retrograde	1467 Aug 03 j 14:46	26°♂17'22			1472 Jun 22 j 08:10	0°♂		
min. Earth dist.	1467 Aug 30 j 11:19	21°♂50'08	0.38794 AU		1472 Aug 09 j 14:20	0°♂		
opposition	1467 Sep 04 j 18:57	20°♂17'58	-5°-26'-17		1472 Sep 23 j 14:35	0°♂		
greatest brilliancy	1467 Sep 03 j 15:26	20°♂37'53	-2.8m	desc. node	1472 Sep 28 j 10:00	3°♂19'18		
direct	1467 Oct 04 j 15:32	15°♂04'54		evening set	1472 Oct 11 j 19:27	12°♂41'33		
	1467 Nov 27 j 04:23	0°♂		max. Earth dist.	1472 Oct 26 j 15:24	23°♂16'04	2.46176 AU	
asc. node	1467 Dec 07 j 04:02	4°♂54'07			1472 Nov 04 j 22:23	0°♂		
	1468 Jan 20 j 21:49	0°♂						
	1468 Mar 10 j 01:11	0°♂		conjunction	1472 Dec 04 j 07:10	21°♂46'37	0°-39'-14	
	1468 Apr 27 j 08:21	0°♂		minimum elong	1472 Dec 04 j 05:13	21°♂42'57	0°39'15	
	1468 Jun 14 j 11:39	0°♂			1472 Dec 15 j 03:39	0°♂		
evening set	1468 Jul 24 j 19:09	25°♂20'30			1473 Jan 22 j 23:21	0°♂		
	1468 Aug 01 j 03:28	0°♂		morning rise	1473 Feb 03 j 13:35	9°♂04'50		
max. Earth dist.	1468 Aug 25 j 05:34	15°♂23'48	2.65392 AU		1473 Mar 02 j 04:53	0°♂		
				greatest brilliancy	1473 Mar 08 j 01:07	4°♂34'59	1.2m	
conjunction	1468 Sep 08 j 07:58	24°♂30'35	0°53'40		1473 Apr 09 j 17:19	0°♂		
minimum elong	1468 Sep 08 j 09:05	24°♂32'24	0°53'39		1473 May 19 j 10:16	0°♂		
	1468 Sep 16 j 18:15	0°♂			1473 Jun 30 j 06:35	0°♂		
morning rise	1468 Oct 23 j 07:45	24°♂12'58		asc. node	1473 Jul 29 j 01:46	19°♂25'04		
	1468 Oct 31 j 21:39	0°♂			1473 Aug 14 j 13:46	0°♂		
	1468 Dec 14 j 10:23	0°♂			1473 Oct 05 j 23:29	0°♂		
desc. node	1468 Dec 24 j 13:12	7°♂07'43		retrograde	1473 Dec 12 j 14:32	20°♂38'47		
	1469 Jan 25 j 11:32	0°♂		opposition	1474 Jan 21 j 18:03	10°♂51'18	4°33'05	

min. Earth dist.	1474 Jan 20 j 23:03	11°♂10'20	0.67381 AU		1479 May 01 j 02:04	0°♂	
greatest brilliancy	1474 Jan 21 j 12:47	10°♂56'35	-1.2m				
direct	1474 Mar 03 j 04:03	1°♂09'21		conjunction	1479 Jun 10 j 10:43	27°♂23'19	0°45'13
	1474 May 28 j 18:07	0°♂		minimum elong	1479 Jun 10 j 09:08	27°♂20'40	0°45'13
	1474 Jul 19 j 23:41	0°♂			1479 Jun 14 j 09:02	0°♂	
desc. node	1474 Aug 16 j 09:09	17°♂27'49		max. Earth dist.	1479 Jul 01 j 03:47	11°♂03'30	2.61505 AU
	1474 Sep 04 j 03:23	0°♂		morning rise	1479 Jul 29 j 22:23	29°♂42'12	
	1474 Oct 16 j 15:33	0°♂			1479 Jul 30 j 09:29	0°♂	
	1474 Nov 25 j 16:02	0°♂			1479 Sep 15 j 18:13	0°♂	
evening set	1474 Dec 05 j 22:48	7°♂55'29			1479 Nov 03 j 08:32	0°♂	
	1475 Jan 03 j 04:26	0°♂			1479 Dec 24 j 01:42	0°♂	
					1480 Feb 19 j 19:04	0°♂	
conjunction	1475 Feb 09 j 06:36	29°♂18'00	-1°-2'-54	desc. node	1480 Apr 07 j 06:11	14°♂50'10	
minimum elong	1475 Feb 09 j 08:11	29°♂21'09	1°02'55	retrograde	1480 Apr 17 j 23:34	15°♂30'58	
	1475 Feb 10 j 03:53	0°♂		opposition	1480 May 21 j 11:45	9°♂04'14	-2°-21'-14
max. Earth dist.	1475 Mar 17 j 20:58	27°♂56'37	2.37835 AU	greatest brilliancy	1480 May 22 j 13:07	8°♂43'24	-2.3m
	1475 Mar 20 j 12:50	0°♂		min. Earth dist.	1480 May 29 j 21:44	6°♂19'08	0.45962 AU
morning rise	1475 Apr 20 j 13:23	23°♂36'14		direct	1480 Jun 27 j 03:48	1°♂11'55	
	1475 Apr 29 j 03:27	0°♂			1480 Sep 10 j 14:46	0°♂	
	1475 Jun 09 j 16:26	0°♂			1480 Oct 25 j 00:49	0°♂	
asc. node	1475 Jun 16 j 00:00	4°♂25'00			1480 Dec 05 j 03:56	0°♂	
	1475 Jul 23 j 17:50	0°♂			1481 Jan 15 j 00:56	0°♂	
	1475 Sep 09 j 02:25	0°♂		asc. node	1481 Feb 04 j 20:36	15°♂01'56	
	1475 Nov 01 j 13:00	0°♂			1481 Feb 25 j 22:37	0°♂	
retrograde	1476 Jan 16 j 14:13	23°♂55'21			1481 Apr 10 j 10:37	0°♂	
opposition	1476 Feb 24 j 22:14	14°♂43'13	4°02'32		1481 May 25 j 14:28	0°♂	
greatest brilliancy	1476 Feb 25 j 11:34	14°♂30'04	-1.3m	evening set	1481 Jun 02 j 02:01	4°♂52'51	
min. Earth dist.	1476 Feb 28 j 00:13	13°♂30'23	0.66238 AU		1481 Jul 11 j 00:51	0°♂	
direct	1476 Apr 06 j 07:20	4°♂41'36					
	1476 Jun 22 j 21:47	0°♂		conjunction	1481 Jul 20 j 07:19	5°♂55'31	1°07'58
desc. node	1476 Jul 03 j 07:56	5°♂40'44		minimum elong	1481 Jul 20 j 06:53	5°♂54'49	1°07'58
	1476 Aug 12 j 09:04	0°♂		max. Earth dist.	1481 Jul 25 j 00:07	8°♂55'33	2.66930 AU
	1476 Sep 25 j 02:46	0°♂			1481 Aug 27 j 02:33	0°♂	
	1476 Nov 04 j 11:46	0°♂		morning rise	1481 Sep 03 j 14:12	4°♂45'39	
	1476 Dec 13 j 02:22	0°♂			1481 Oct 13 j 05:20	0°♂	
	1477 Jan 20 j 03:33	0°♂			1481 Nov 29 j 02:29	0°♂	
evening set	1477 Feb 13 j 14:11	19°♂07'16			1482 Jan 14 j 22:24	0°♂	
	1477 Feb 27 j 16:09	0°♂		desc. node	1482 Feb 23 j 05:28	24°♂52'32	
	1477 Apr 08 j 12:15	0°♂			1482 Mar 03 j 11:08	0°♂	
					1482 Apr 23 j 07:54	0°♂	
conjunction	1477 Apr 19 j 09:45	7°♂58'46	0°-8'-40	retrograde	1482 Jul 04 j 15:49	24°♂38'06	
minimum elong	1477 Apr 19 j 10:23	7°♂59'54	0°08'40	opposition	1482 Aug 03 j 19:20	19°♂36'56	-6°-52'00
behind sun begin	1477 Apr 18 j 12:19	7°♂19'45		greatest brilliancy	1482 Aug 03 j 19:59	19°♂36'30	-2.9m
behind sun end	1477 Apr 20 j 08:27	8°♂40'00		min. Earth dist.	1482 Aug 03 j 12:06	19°♂41'43	0.37306 AU
asc. node	1477 May 02 j 22:58	17°♂45'21		direct	1482 Sep 02 j 12:30	14°♂40'54	
	1477 May 20 j 05:50	0°♂			1482 Oct 25 j 13:24	0°♂	
max. Earth dist.	1477 May 30 j 19:21	7°♂21'21	2.50907 AU		1482 Dec 16 j 18:31	0°♂	
morning rise	1477 Jun 17 j 01:57	19°♂11'32		asc. node	1482 Dec 23 j 19:25	4°♂25'21	
	1477 Jul 03 j 03:55	0°♂			1483 Feb 01 j 16:09	0°♂	
	1477 Aug 18 j 08:03	0°♂			1483 Mar 20 j 02:41	0°♂	
	1477 Oct 06 j 00:55	0°♂			1483 May 06 j 02:22	0°♂	
	1477 Nov 28 j 03:57	0°♂			1483 Jun 22 j 13:25	0°♂	
retrograde	1478 Feb 24 j 13:36	29°♂50'13		evening set	1483 Jul 11 j 09:23	11°♂53'38	
opposition	1478 Apr 02 j 20:16	21°♂38'40	2°01'41		1483 Aug 08 j 22:32	0°♂	
greatest brilliancy	1478 Apr 03 j 14:18	21°♂21'41	-1.6m	max. Earth dist.	1483 Aug 17 j 02:54	5°♂13'03	2.66876 AU
min. Earth dist.	1478 Apr 09 j 13:35	19°♂07'02	0.58587 AU				
direct	1478 May 13 j 10:41	11°♂55'49		conjunction	1483 Aug 26 j 02:31	10°♂57'55	1°02'33
desc. node	1478 May 21 j 06:32	12°♂19'15		minimum elong	1483 Aug 26 j 03:22	10°♂59'17	1°02'32
	1478 Jul 12 j 18:50	0°♂			1483 Sep 24 j 13:59	0°♂	
	1478 Aug 31 j 19:26	0°♂		morning rise	1483 Oct 09 j 13:04	9°♂46'57	
	1478 Oct 13 j 01:26	0°♂			1483 Nov 09 j 00:42	0°♂	
	1478 Nov 21 j 12:48	0°♂			1483 Dec 23 j 03:23	0°♂	
	1478 Dec 30 j 04:41	0°♂		desc. node	1484 Jan 11 j 04:25	13°♂13'41	
	1479 Feb 07 j 07:33	0°♂			1484 Feb 04 j 00:14	0°♂	
	1479 Mar 19 j 18:35	0°♂			1484 Mar 16 j 22:46	0°♂	
asc. node	1479 Mar 20 j 22:36	0°♂50'47			1484 Apr 27 j 15:49	0°♂	
evening set	1479 Apr 17 j 00:15	20°♂10'30			1484 Jun 09 j 23:51	0°♂	

	1484 Aug 01 j 15:29	0°♄			1489 Sep 11 j 14:44	0°♍		
retrograde	1484 Sep 09 j 06:15	9°♄20'59			1489 Oct 24 j 00:02	0°♄		
min. Earth dist.	1484 Oct 07 j 01:45	4°♄01'40	0.45486 AU	evening set	1489 Nov 12 j 08:02	14°♄17'49		
opposition	1484 Oct 15 j 05:39	1°♄12'09	-1°-27'-4		1489 Dec 03 j 01:40	0°♄		
greatest brilliancy	1484 Oct 14 j 14:27	1°♄25'23	-2.4m	max. Earth dist.	1489 Dec 11 j 00:56	6°♄07'20	2.38620 AU	
	1484 Oct 18 j 17:58	30°♄			1490 Jan 10 j 16:18	0°♄		
asc. node	1484 Nov 09 j 19:34	24°♄55'17						
direct	1484 Nov 16 j 19:22	24°♄35'27		conjunction	1490 Jan 11 j 20:31	0°♄55'26	-1°-3'-1	
	1484 Dec 17 j 13:27	0°♄		minimum elong	1490 Jan 11 j 19:12	0°♄52'51	1°03'01	
	1485 Feb 20 j 04:31	0°♄			1490 Feb 17 j 17:24	0°♄		
	1485 Apr 13 j 09:14	0°♄		morning rise	1490 Mar 22 j 10:50	25°♄37'12		
	1485 Jun 02 j 04:26	0°♄			1490 Mar 28 j 02:38	0°♄		
	1485 Jul 20 j 13:39	0°♄			1490 May 06 j 16:41	0°♄		
evening set	1485 Aug 16 j 12:40	17°♄08'58			1490 Jun 17 j 05:59	0°♄		
	1485 Sep 05 j 08:21	0°♄		asc. node	1490 Jul 02 j 16:43	10°♄42'16		
max. Earth dist.	1485 Sep 09 j 18:44	2°♄54'21	2.61480 AU		1490 Jul 31 j 13:19	0°♄		
					1490 Sep 17 j 23:35	0°♄		
conjunction	1485 Oct 01 j 16:40	17°♄26'55	0°32'22		1490 Nov 16 j 00:09	0°♄		
minimum elong	1485 Oct 01 j 17:42	17°♄28'39	0°32'22	retrograde	1491 Jan 02 j 16:51	11°♄07'09		
	1485 Oct 20 j 05:33	0°♄		opposition	1491 Feb 11 j 11:45	1°♄38'30	4°23'45	
morning rise	1485 Nov 17 j 18:08	19°♄46'52		greatest brilliancy	1491 Feb 11 j 18:20	1°♄31'57	-1.2m	
desc. node	1485 Nov 28 j 03:14	27°♄07'17		min. Earth dist.	1491 Feb 13 j 01:30	1°♄01'00	0.67483 AU	
	1485 Dec 02 j 04:11	0°♄			1491 Feb 15 j 15:19	30°♄		
	1486 Jan 12 j 09:21	0°♄		direct	1491 Mar 24 j 16:08	21°♄41'10		
	1486 Feb 21 j 07:34	0°♄			1491 May 04 j 10:52	0°♄		
	1486 Apr 01 j 14:04	0°♄			1491 Jul 04 j 23:41	0°♄		
	1486 May 11 j 02:59	0°♄		desc. node	1491 Jul 21 j 00:07	9°♄31'52		
	1486 Jun 21 j 07:48	0°♄			1491 Aug 22 j 00:48	0°♄		
	1486 Aug 06 j 00:37	0°♄			1491 Oct 04 j 02:39	0°♄		
asc. node	1486 Sep 27 j 18:46	25°♄18'09			1491 Nov 13 j 06:26	0°♄		
retrograde	1486 Oct 24 j 15:38	29°♄48'27			1491 Dec 21 j 19:00	0°♄		
min. Earth dist.	1486 Nov 26 j 22:19	22°♄23'00	0.58143 AU	evening set	1492 Jan 17 j 09:17	21°♄00'37		
opposition	1486 Dec 02 j 23:08	20°♄00'28	2°48'28		1492 Jan 28 j 18:32	0°♄		
greatest brilliancy	1486 Dec 02 j 01:12	20°♄22'04	-1.7m		1492 Mar 07 j 04:37	0°♄		
direct	1487 Jan 08 j 17:52	11°♄34'00						
	1487 Mar 14 j 16:42	0°♄		conjunction	1492 Mar 25 j 01:54	13°♄40'04	0°-34'-30	
	1487 May 11 j 06:00	0°♄		minimum elong	1492 Mar 25 j 04:33	13°♄45'05	0°34'30	
	1487 Jul 01 j 04:09	0°♄			1492 Apr 15 j 21:26	0°♄		
	1487 Aug 17 j 19:07	0°♄		max. Earth dist.	1492 May 13 j 05:14	19°♄52'50	2.45659 AU	
evening set	1487 Sep 25 j 07:19	25°♄38'13		asc. node	1492 May 19 j 15:00	24°♄26'44		
	1487 Oct 01 j 16:07	0°♄		morning rise	1492 May 27 j 21:00	0°♄16'17		
max. Earth dist.	1487 Oct 10 j 22:15	6°♄24'23	2.51195 AU		1492 May 27 j 11:44	0°♄		
desc. node	1487 Oct 16 j 01:45	10°♄00'09			1492 Jul 10 j 08:45	0°♄		
	1487 Nov 13 j 02:22	0°♄			1492 Aug 25 j 19:00	0°♄		
					1492 Oct 14 j 14:14	0°♄		
conjunction	1487 Nov 14 j 14:50	1°♄06'13	0°-17'-57		1492 Dec 11 j 10:46	0°♄		
minimum elong	1487 Nov 14 j 13:57	1°♄04'38	0°17'56	retrograde	1493 Feb 07 j 23:36	15°♄22'42		
	1487 Dec 23 j 12:26	0°♄		opposition	1493 Mar 18 j 05:55	6°♄43'21	3°01'27	
morning rise	1488 Jan 09 j 04:42	12°♄43'02		greatest brilliancy	1493 Mar 19 j 01:25	6°♄24'33	-1.5m	
	1488 Jan 31 j 13:24	0°♄		min. Earth dist.	1493 Mar 23 j 14:39	4°♄39'28	0.62348 AU	
	1488 Mar 09 j 23:21	0°♄			1493 Apr 06 j 06:14	30°♄		
	1488 Apr 17 j 15:04	0°♄		direct	1493 Apr 28 j 10:19	26°♄46'17		
	1488 May 27 j 11:44	0°♄			1493 May 22 j 01:52	0°♄		
	1488 Jul 08 j 16:50	0°♄		desc. node	1493 Jun 06 j 23:04	5°♄05'55		
asc. node	1488 Aug 14 j 17:08	24°♄11'22			1493 Jul 26 j 17:12	0°♄		
	1488 Aug 24 j 05:53	0°♄			1493 Sep 10 j 20:41	0°♄		
	1488 Oct 22 j 22:35	0°♄			1493 Oct 22 j 01:01	0°♄		
retrograde	1488 Nov 29 j 05:33	7°♄35'37			1493 Nov 30 j 00:35	0°♄		
	1489 Jan 02 j 14:05	30°♄			1494 Jan 07 j 08:11	0°♄		
min. Earth dist.	1489 Jan 06 j 02:30	28°♄36'10	0.66028 AU		1494 Feb 15 j 03:15	0°♄		
opposition	1489 Jan 08 j 10:00	27°♄40'28	4°23'24	evening set	1494 Mar 25 j 21:18	28°♄59'15		
greatest brilliancy	1489 Jan 07 j 21:25	27°♄53'06	-1.3m		1494 Mar 27 j 06:30	0°♄		
direct	1489 Feb 17 j 02:08	18°♄13'34		asc. node	1494 Apr 06 j 13:36	7°♄29'13		
	1489 Apr 08 j 07:45	0°♄			1494 May 08 j 06:50	0°♄		
	1489 Jun 07 j 22:34	0°♄						
	1489 Jul 28 j 01:08	0°♄		conjunction	1494 May 23 j 01:52	10°♄13'29	0°27'55	
desc. node	1489 Sep 02 j 00:34	23°♄29'14		minimum elong	1494 May 23 j 00:28	10°♄11'05	0°27'54	

max. Earth dist.	1494 Jun 20 j 09:04	29°II20'47	2.57942 AU	direct	1499 Oct 21 j 17:30	0°V52'37	
	1494 Jun 21 j 08:38	0°☿		asc. node	1499 Nov 27 j 10:50	8°V28'48	
morning rise	1494 Jul 14 j 10:20	15°☿11'48			1500 Jan 11 j 19:20	0°♄	
	1494 Aug 06 j 08:17	0°♁			1500 Mar 03 j 15:27	0°♂	
	1494 Sep 23 j 00:59	0°♊			1500 Apr 21 j 23:36	0°☿	
	1494 Nov 11 j 18:15	0°♋			1500 Jun 09 j 14:42	0°♁	
	1495 Jan 05 j 00:20	0°♌			1500 Jul 27 j 12:00	0°♊	
retrograde	1495 Mar 26 j 16:23	26°♌01'34		evening set	1500 Aug 02 j 01:11	3°♊31'17	
desc. node	1495 Apr 24 j 21:18	20°♌51'30		max. Earth dist.	1500 Aug 30 j 18:33	21°♊56'22	2.64206 AU
opposition	1495 Apr 30 j 22:59	18°♌46'44	0°-17'-51		1500 Sep 12 j 03:59	0°♋	
greatest brilliancy	1495 Apr 28 j 03:20	19°♌45'48	-2.0m				
min. Earth dist.	1495 May 09 j 06:18	15°♌51'24	0.51254 AU	conjunction	1500 Sep 16 j 16:23	2°♋57'26	0°46'49
direct	1495 Jun 08 j 17:05	9°♌54'28		minimum elong	1500 Sep 16 j 17:33	2°♋59'21	0°46'48
	1495 Aug 09 j 16:00	0°♌			1500 Oct 27 j 05:07	0°♌	
	1495 Sep 26 j 00:35	0°♍		morning rise	1500 Nov 01 j 05:29	3°♌24'49	
	1495 Nov 06 j 06:55	0°♎			1500 Dec 09 j 12:46	0°♌	
	1495 Dec 15 j 23:35	0°♏		desc. node	1500 Dec 14 j 18:38	3°♌42'44	
	1496 Jan 24 j 21:26	0°♐			1501 Jan 20 j 06:20	0°♍	
asc. node	1496 Feb 22 j 13:35	21°♐01'43			1501 Mar 01 j 18:35	0°♎	
	1496 Mar 06 j 00:59	0°♑			1501 Apr 10 j 16:02	0°♏	
	1496 Apr 17 j 22:35	0°♒			1501 May 20 j 23:17	0°♐	
evening set	1496 May 16 j 02:07	19°♒00'50			1501 Jul 02 j 15:23	0°♑	
	1496 Jun 01 j 15:56	0°☿			1501 Aug 23 j 00:08	0°♒	
				retrograde	1501 Oct 08 j 13:59	12°♒34'01	
conjunction	1496 Jul 05 j 05:28	21°☿52'16	1°02'45	asc. node	1501 Oct 14 j 10:37	12°♒18'48	
minimum elong	1496 Jul 05 j 04:28	21°☿50'38	1°02'45	min. Earth dist.	1501 Nov 08 j 17:59	5°♒54'58	0.53530 AU
max. Earth dist.	1496 Jul 15 j 16:49	28°☿36'55	2.65445 AU	greatest brilliancy	1501 Nov 15 j 08:22	3°♒23'29	-1.9m
	1496 Jul 17 j 20:35	0°♁		opposition	1501 Nov 16 j 00:29	3°♒08'02	1°34'01
morning rise	1496 Aug 20 j 17:04	21°♁36'01			1501 Nov 24 j 15:42	30°♒♄	
	1496 Sep 02 j 22:58	0°♊		direct	1501 Dec 21 j 06:51	25°♒17'18	
	1496 Oct 20 j 11:27	0°♋			1502 Jan 19 j 11:04	0°♒	
	1496 Dec 07 j 09:05	0°♌			1502 Mar 27 j 20:31	0°☿	
	1497 Jan 25 j 09:42	0°♍			1502 May 19 j 23:39	0°♁	
desc. node	1497 Mar 11 j 20:31	26°♍00'54			1502 Jul 08 j 15:12	0°♊	
	1497 Mar 19 j 09:42	0°♍			1502 Aug 24 j 19:58	0°♋	
retrograde	1497 Jun 02 j 00:41	24°♍25'16		evening set	1502 Sep 09 j 03:58	10°♋05'12	
opposition	1497 Jul 02 j 17:11	19°♍14'44	-5°-57'-50	max. Earth dist.	1502 Sep 27 j 11:33	22°♋22'10	2.55719 AU
greatest brilliancy	1497 Jul 03 j 23:44	18°♍53'22	-2.7m		1502 Oct 08 j 15:51	0°♌	
min. Earth dist.	1497 Jul 07 j 12:01	17°♍54'45	0.39043 AU				
direct	1497 Aug 03 j 16:00	13°♍29'03		conjunction	1502 Oct 27 j 07:02	12°♌56'29	0°03'20
	1497 Sep 26 j 19:25	0°♎		minimum elong	1502 Oct 27 j 07:08	12°♌56'40	0°03'20
	1497 Nov 15 j 06:39	0°♏		behind sun begin	1502 Oct 26 j 10:38	12°♌20'42	
	1497 Dec 29 j 15:05	0°♐		behind sun end	1502 Oct 28 j 03:39	13°♌32'41	
asc. node	1498 Jan 09 j 12:23	7°♐27'16		desc. node	1502 Nov 01 j 17:39	16°♌46'36	
	1498 Feb 11 j 14:37	0°♑			1502 Nov 20 j 05:54	0°♌	
	1498 Mar 28 j 11:51	0°♒		morning rise	1502 Dec 17 j 13:46	20°♌01'11	
	1498 May 13 j 13:36	0°☿			1502 Dec 30 j 22:11	0°♍	
evening set	1498 Jun 26 j 14:58	28°☿09'36			1503 Feb 08 j 05:58	0°♎	
	1498 Jun 29 j 12:26	0°♁			1503 Mar 18 j 22:12	0°♏	
max. Earth dist.	1498 Aug 08 j 07:08	25°♁16'43	2.67539 AU		1503 Apr 26 j 19:29	0°♐	
					1503 Jun 05 j 23:19	0°♑	
conjunction	1498 Aug 11 j 23:20	27°♁37'05	1°07'43		1503 Jul 18 j 20:58	0°♒	
minimum elong	1498 Aug 11 j 23:46	27°♁37'47	1°07'43	asc. node	1503 Sep 01 j 09:44	27°♒30'57	
	1498 Aug 15 j 17:02	0°♊			1503 Sep 05 j 21:51	0°☿	
morning rise	1498 Sep 25 j 09:19	26°♊04'28		retrograde	1503 Nov 16 j 13:14	23°☿55'07	
	1498 Oct 01 j 11:08	0°♋		min. Earth dist.	1503 Dec 22 j 18:19	15°☿29'00	0.63679 AU
	1498 Nov 16 j 08:11	0°♌		opposition	1503 Dec 26 j 14:01	13°☿57'12	4°00'07
	1498 Dec 31 j 05:39	0°♍		greatest brilliancy	1503 Dec 25 j 19:21	14°☿15'53	-1.4m
desc. node	1499 Jan 27 j 20:01	18°♍44'31		direct	1504 Feb 03 j 07:26	4°☿49'48	
	1499 Feb 13 j 06:42	0°♍			1504 Apr 22 j 23:36	0°♁	
	1499 Mar 28 j 21:36	0°♎			1504 Jun 16 j 20:27	0°♊	
	1499 May 12 j 08:10	0°♏			1504 Aug 04 j 16:40	0°♋	
	1499 Jul 02 j 03:46	0°♐		desc. node	1504 Sep 18 j 17:01	29°♋51'54	
retrograde	1499 Aug 18 j 11:50	13°♐19'48			1504 Sep 18 j 21:44	0°♌	
min. Earth dist.	1499 Sep 14 j 00:10	8°♐43'38	0.40748 AU	evening set	1504 Oct 22 j 12:19	23°♌39'12	
greatest brilliancy	1499 Sep 19 j 20:00	6°♐55'52	-2.7m		1504 Oct 31 j 06:30	0°♍	
opposition	1499 Sep 21 j 01:52	6°♐32'42	-4°00'-44	max. Earth dist.	1504 Nov 07 j 10:25	5°♌14'47	2.43329 AU

	1504 Dec 10 j 10:37	0°☾			1509 Sep 30 j 15:59	0°♊		
					1509 Nov 21 j 03:42	0°♈		
conjunction	1504 Dec 17 j 06:10	5°☾12'56	0°-50'-3		1510 Jan 22 j 14:29	0°♍		
minimum elong	1504 Dec 17 j 03:55	5°☾08'36	0°50'03	retrograde	1510 Mar 06 j 18:17	9°♍07'13		
	1505 Jan 18 j 04:18	0°♊		opposition	1510 Apr 12 j 10:03	1°♍13'29	1°17'38	
morning rise	1505 Feb 20 j 00:22	25°♊49'21		greatest brilliancy	1510 Apr 12 j 23:35	1°♍00'57	-1.8m	
	1505 Feb 25 j 07:47	0°♋			1510 Apr 15 j 17:17	30°♋♈		
	1505 Apr 04 j 18:11	0°♎		min. Earth dist.	1510 Apr 19 j 19:45	28°♈29'35	0.56172 AU	
	1505 May 14 j 08:50	0°♌		desc. node	1510 May 11 j 13:10	22°♈32'55		
	1505 Jun 25 j 00:47	0°♍		direct	1510 May 22 j 12:43	21°♈43'44		
asc. node	1505 Jul 19 j 07:20	16°♍34'55			1510 Jun 29 j 17:48	0°♍		
	1505 Aug 08 j 19:27	0°☿			1510 Aug 24 j 14:29	0°♌		
	1505 Sep 28 j 03:41	0°♎			1510 Oct 06 j 23:49	0°☾		
retrograde	1505 Dec 20 j 06:06	28°♎27'10			1510 Nov 15 j 22:06	0°♊		
opposition	1506 Jan 29 j 08:02	18°♎45'26	4°33'01		1510 Dec 24 j 20:31	0°♋		
greatest brilliancy	1506 Jan 29 j 07:02	18°♎46'26	-1.2m		1511 Feb 02 j 04:19	0°♎		
min. Earth dist.	1506 Jan 29 j 09:11	18°♎44'16	0.67714 AU	asc. node	1511 Mar 11 j 05:21	27°♎23'52		
direct	1506 Mar 11 j 02:23	8°♎56'58			1511 Mar 14 j 19:36	0°♌		
	1506 May 20 j 22:32	0°♊			1511 Apr 26 j 06:49	0°♍		
	1506 Jul 14 j 08:15	0°♈		evening set	1511 Apr 28 j 11:28	1°♍30'48		
desc. node	1506 Aug 06 j 15:49	14°♈33'41			1511 Jun 09 j 16:15	0°☿		
	1506 Aug 30 j 02:05	0°♍						
	1506 Oct 11 j 19:15	0°♌		conjunction	1511 Jun 20 j 04:19	6°☿55'40	0°53'02	
	1506 Nov 20 j 21:10	0°☾		minimum elong	1511 Jun 20 j 02:51	6°☿53'15	0°53'01	
evening set	1506 Dec 20 j 12:23	23°☾00'45		max. Earth dist.	1511 Jul 07 j 01:00	17°☿56'28	2.63137 AU	
	1506 Dec 29 j 09:40	0°♊			1511 Jul 25 j 17:10	0°♎		
	1507 Feb 05 j 08:53	0°♋		morning rise	1511 Aug 07 j 09:59	8°♎07'52		
					1511 Sep 10 j 22:24	0°♊		
conjunction	1507 Feb 25 j 17:23	16°♋00'09	0°-55'-58		1511 Oct 29 j 01:03	0°♈		
minimum elong	1507 Feb 25 j 20:18	16°♋05'52	0°55'57		1511 Dec 17 j 11:20	0°♍		
	1507 Mar 15 j 17:27	0°♎			1512 Feb 08 j 13:22	0°♌		
max. Earth dist.	1507 Apr 16 j 16:14	24°♎18'23	2.40271 AU	desc. node	1512 Mar 28 j 11:53	21°♌56'28		
	1507 Apr 24 j 07:40	0°♌		retrograde	1512 May 03 j 01:01	28°♌34'48		
morning rise	1507 May 05 j 10:39	8°♌11'41		opposition	1512 Jun 04 j 09:41	22°♌37'01	-3°-41'-52	
	1507 Jun 04 j 19:42	0°♍		greatest brilliancy	1512 Jun 05 j 19:58	22°♌10'16	-2.5m	
asc. node	1507 Jun 06 j 07:08	1°♍02'19		min. Earth dist.	1512 Jun 12 j 04:06	20°♌12'06	0.43179 AU	
	1507 Jul 18 j 17:28	0°☿		direct	1512 Jul 09 j 14:16	15°♌27'14		
	1507 Sep 03 j 14:34	0°♎			1512 Aug 28 j 13:25	0°☾		
	1507 Oct 25 j 05:30	0°♊			1512 Oct 16 j 18:59	0°♊		
	1508 Jan 06 j 13:29	0°♈			1512 Nov 28 j 09:57	0°♋		
retrograde	1508 Jan 24 j 20:19	1°♈53'13			1513 Jan 09 j 02:22	0°♎		
	1508 Feb 10 j 23:14	30°♋♊		asc. node	1513 Jan 26 j 04:12	12°♎10'34		
opposition	1508 Mar 03 j 20:37	22°♋51'29	3°44'05		1513 Feb 20 j 12:42	0°♌		
greatest brilliancy	1508 Mar 04 j 12:53	22°♋35'34	-1.3m		1513 Apr 05 j 09:42	0°♍		
min. Earth dist.	1508 Mar 07 j 18:25	21°♋19'49	0.65127 AU		1513 May 20 j 19:33	0°☿		
direct	1508 Apr 14 j 06:05	12°♋49'44		evening set	1513 Jun 11 j 05:55	13°☿52'29		
	1508 Jun 14 j 02:43	0°♈			1513 Jul 06 j 09:23	0°♎		
desc. node	1508 Jun 23 j 14:18	4°♈41'38						
	1508 Aug 06 j 07:46	0°♍		conjunction	1513 Jul 28 j 15:50	14°♎11'57	1°09'02	
	1508 Sep 19 j 17:56	0°♌		minimum elong	1513 Jul 28 j 15:44	14°♎11'47	1°09'03	
	1508 Oct 30 j 08:55	0°☾		max. Earth dist.	1513 Jul 30 j 06:59	15°♎14'16	2.67381 AU	
	1508 Dec 08 j 02:17	0°♊			1513 Aug 22 j 11:34	0°♊		
	1509 Jan 15 j 05:20	0°♋		morning rise	1513 Sep 11 j 12:16	12°♊46'04		
	1509 Feb 22 j 19:30	0°♎			1513 Oct 08 j 10:29	0°♈		
evening set	1509 Feb 28 j 19:44	4°♎35'47			1513 Nov 23 j 21:39	0°♍		
	1509 Apr 03 j 17:08	0°♌			1514 Jan 08 j 21:25	0°♌		
asc. node	1509 Apr 23 j 06:59	14°♌14'26		desc. node	1514 Feb 13 j 11:38	23°♌16'57		
					1514 Feb 23 j 18:54	0°☾		
conjunction	1509 May 02 j 08:14	20°♌42'53	0°05'45		1514 Apr 11 j 17:05	0°♊		
minimum elong	1509 May 02 j 07:50	20°♌42'10	0°05'45		1514 Jun 03 j 23:42	0°♋		
behind sun begin	1509 May 01 j 08:28	20°♌00'37		retrograde	1514 Jul 22 j 01:07	13°♋02'59		
behind sun end	1509 May 03 j 07:12	21°♌23'41		min. Earth dist.	1514 Aug 18 j 20:04	8°♋31'14	0.37753 AU	
	1509 May 15 j 11:59	0°♍		greatest brilliancy	1514 Aug 21 j 09:42	7°♋48'53	-2.9m	
max. Earth dist.	1509 Jun 07 j 23:54	16°♍14'03	2.53587 AU	opposition	1514 Aug 22 j 03:38	7°♋36'32	-6°-18'-22	
morning rise	1509 Jun 27 j 12:13	29°♍23'49		direct	1514 Sep 20 j 17:11	2°♋38'01		
	1509 Jun 28 j 09:55	0°☿			1514 Dec 06 j 10:58	0°♎		
	1509 Aug 13 j 10:46	0°♎		asc. node	1514 Dec 14 j 03:36	4°♎21'46		

	1515 Jan 25 j 14:43	0°♄		morning rise	1520 Jan 23 j 13:30	27°♄32'28	
	1515 Mar 14 j 08:34	0°♂			1520 Jan 26 j 17:15	0°♁	
	1515 Apr 30 j 23:52	0°♂			1520 Mar 05 j 00:49	0°♂	
	1515 Jun 17 j 19:14	0°♂			1520 Apr 12 j 14:08	0°♂	
evening set	1515 Jul 19 j 15:48	20°♂03'38			1520 May 22 j 07:22	0°♄	
	1515 Aug 04 j 08:12	0°♂			1520 Jul 03 j 05:19	0°♂	
max. Earth dist.	1515 Aug 22 j 10:21	11°♂32'50	2.66160 AU	asc. node	1520 Aug 05 j 01:03	21°♂54'52	
					1520 Aug 17 j 20:23	0°♂	
conjunction	1515 Sep 03 j 05:05	19°♂07'18	0°57'48		1520 Oct 11 j 03:05	0°♂	
minimum elong	1515 Sep 03 j 06:07	19°♂08'58	0°57'48	retrograde	1520 Dec 06 j 22:11	15°♂36'10	
	1515 Sep 19 j 23:43	0°♄		min. Earth dist.	1521 Jan 14 j 15:26	6°♂20'30	0.66902 AU
morning rise	1515 Oct 17 j 21:19	18°♄21'33		opposition	1521 Jan 16 j 03:08	5°♂44'43	4°30'38
	1515 Nov 04 j 07:01	0°♂		greatest brilliancy	1521 Jan 15 j 18:27	5°♂53'26	-1.3m
	1515 Dec 18 j 02:22	0°♄			1521 Jan 31 j 18:22	30°♂	
desc. node	1516 Jan 01 j 11:22	10°♄03'59		direct	1521 Feb 25 j 06:21	26°♂09'04	
	1516 Jan 29 j 12:13	0°♄			1521 Mar 24 j 01:58	0°♂	
	1516 Mar 10 j 19:53	0°♁			1521 Jun 01 j 11:23	0°♂	
	1516 Apr 20 j 16:33	0°♂			1521 Jul 22 j 18:53	0°♄	
	1516 Jun 01 j 10:20	0°♂		desc. node	1521 Aug 23 j 07:26	20°♄17'33	
	1516 Jul 17 j 18:25	0°♄			1521 Sep 06 j 17:51	0°♂	
retrograde	1516 Sep 20 j 15:09	22°♄40'53			1521 Oct 19 j 06:05	0°♄	
min. Earth dist.	1516 Oct 19 j 14:47	16°♄52'34	0.48400 AU	evening set	1521 Nov 25 j 06:50	27°♄40'10	
opposition	1516 Oct 27 j 16:28	13°♄56'48	0°-10'-56		1521 Nov 28 j 07:58	0°♄	
greatest brilliancy	1517 Jan 23 j 01:05	20°♄57'42	-3.1m		1522 Jan 05 j 21:41	0°♁	
asc. node	1516 Oct 31 j 01:55	12°♄43'55		max. Earth dist.	1522 Jan 23 j 21:47	14°♁12'03	2.37108 AU
direct	1516 Nov 30 j 05:51	6°♄50'50					
	1517 Feb 11 j 05:43	0°♂		conjunction	1522 Jan 27 j 14:14	17°♁06'49	-1°-4'-51
	1517 Apr 07 j 06:56	0°♂		minimum elong	1522 Jan 27 j 14:27	17°♁07'15	1°04'52
	1517 May 28 j 00:52	0°♂			1522 Feb 12 j 21:47	0°♂	
	1517 Jul 15 j 19:43	0°♂			1522 Mar 23 j 06:16	0°♂	
evening set	1517 Aug 24 j 22:48	25°♂34'34		morning rise	1522 Apr 08 j 05:08	12°♂14'41	
	1517 Aug 31 j 17:54	0°♄			1522 May 01 j 19:27	0°♄	
max. Earth dist.	1517 Sep 15 j 22:12	9°♄59'26	2.59651 AU		1522 Jun 12 j 07:07	0°♂	
				asc. node	1522 Jun 22 j 23:30	7°♂27'19	
conjunction	1517 Oct 10 j 14:58	26°♄35'04	0°22'32		1522 Jul 26 j 08:49	0°♂	
minimum elong	1517 Oct 10 j 15:47	26°♄36'27	0°22'31		1522 Sep 12 j 00:36	0°♂	
	1517 Oct 15 j 15:02	0°♂			1522 Nov 06 j 00:57	0°♂	
desc. node	1517 Nov 18 j 09:44	23°♂32'47		retrograde	1523 Jan 10 j 14:21	18°♂54'27	
morning rise	1517 Nov 27 j 21:04	0°♄18'08		opposition	1523 Feb 19 j 04:00	9°♂34'25	4°12'40
	1517 Nov 27 j 10:57	0°♄		greatest brilliancy	1523 Feb 19 j 14:24	9°♂24'08	-1.2m
	1518 Jan 07 j 11:42	0°♄		min. Earth dist.	1523 Feb 21 j 13:39	8°♂37'29	0.66922 AU
	1518 Feb 16 j 04:26	0°♁			1523 Mar 24 j 06:41	30°♂	
	1518 Mar 27 j 05:04	0°♂		direct	1523 Apr 01 j 12:07	29°♂34'18	
	1518 May 05 j 10:39	0°♂			1523 Apr 09 j 23:54	0°♂	
	1518 Jun 15 j 02:37	0°♄			1523 Jun 28 j 02:48	0°♄	
	1518 Jul 29 j 07:40	0°♂		desc. node	1523 Jul 11 j 06:10	7°♄27'38	
asc. node	1518 Sep 18 j 01:16	27°♂56'10			1523 Aug 16 j 12:28	0°♂	
	1518 Sep 22 j 22:09	0°♂			1523 Sep 29 j 00:30	0°♄	
retrograde	1518 Nov 02 j 06:16	9°♄16'26			1523 Nov 08 j 08:10	0°♄	
min. Earth dist.	1518 Dec 06 j 15:03	1°♄28'17	0.60361 AU		1523 Dec 16 j 22:12	0°♁	
	1518 Dec 10 j 08:04	30°♂		greatest brilliancy	1523 Dec 29 j 20:52	10°♁12'24	1.2m
opposition	1518 Dec 11 j 22:08	29°♂22'11	3°20'44		1524 Jan 23 j 22:29	0°♂	
greatest brilliancy	1518 Dec 10 j 23:58	29°♂44'11	-1.6m	evening set	1524 Feb 02 j 08:39	7°♂24'46	
direct	1519 Jan 18 j 11:30	20°♂39'20			1524 Mar 02 j 09:12	0°♂	
	1519 Mar 03 j 00:14	0°♂					
	1519 May 04 j 22:40	0°♂		conjunction	1524 Apr 08 j 18:47	28°♂16'45	0°-19'-49
	1519 Jun 25 j 23:54	0°♂		minimum elong	1524 Apr 08 j 20:19	28°♂19'37	0°19'49
	1519 Aug 13 j 00:23	0°♄			1524 Apr 11 j 02:34	0°♄	
	1519 Sep 27 j 00:28	0°♂		asc. node	1524 May 09 j 22:21	20°♄56'32	
evening set	1519 Oct 05 j 01:30	5°♂33'38			1524 May 22 j 17:18	0°♂	
desc. node	1519 Oct 06 j 08:10	6°♂26'56		max. Earth dist.	1524 May 23 j 23:31	0°♂53'01	2.48606 AU
max. Earth dist.	1519 Oct 19 j 20:25	15°♂56'22	2.48466 AU	morning rise	1524 Jun 08 j 16:27	11°♂48'01	
	1519 Nov 08 j 10:31	0°♄			1524 Jul 05 j 13:12	0°♂	
					1524 Aug 20 j 18:10	0°♂	
conjunction	1519 Nov 25 j 23:35	12°♄53'04	0°-30'-19		1524 Oct 08 j 19:10	0°♂	
minimum elong	1519 Nov 25 j 22:05	12°♄50'16	0°30'18		1524 Dec 02 j 08:42	0°♄	
	1519 Dec 18 j 18:48	0°♄		retrograde	1525 Feb 17 j 05:41	23°♄58'48	

opposition	1525 Mar 27 j 00:00	15° Ω 34'01	2°28'52		1530 Jun 24 j 19:19	0° Ω	
greatest brilliancy	1525 Mar 27 j 19:13	15° Ω 15'43	-1.5m	evening set	1530 Jul 05 j 03:47	6° Ω 33'25	
min. Earth dist.	1525 Apr 02 j 03:17	13° Ω 14'04	0.60375 AU		1530 Aug 11 j 02:24	0° \mathbb{M}	
direct	1525 May 06 j 21:58	5° Ω 43'40		max. Earth dist.	1530 Aug 13 j 12:25	1° \mathbb{M} 32'24	2.67285 AU
desc. node	1525 May 28 j 04:20	8° Ω 24'43					
	1525 Jul 18 j 14:25	0° \mathbb{M}		conjunction	1530 Aug 20 j 02:07	5° \mathbb{M} 43'56	1°05'08
	1525 Sep 04 j 16:33	0° \mathbb{X}		minimum elong	1530 Aug 20 j 02:48	5° \mathbb{M} 45'02	1°05'08
	1525 Oct 16 j 11:24	0° \mathbb{Z}			1530 Sep 26 j 19:17	0° Ω	
	1525 Nov 24 j 17:31	0° \approx		morning rise	1530 Oct 03 j 10:48	4° Ω 19'14	
	1526 Jan 02 j 05:24	0° \mathbb{X}			1530 Nov 11 j 11:02	0° \mathbb{M}	
	1526 Feb 10 j 03:57	0° \mathbb{Y}			1530 Dec 25 j 22:03	0° \mathbb{X}	
	1526 Mar 22 j 10:09	0° \mathbb{B}		desc. node	1531 Jan 18 j 02:21	15° \mathbb{X} 57'02	
asc. node	1526 Mar 27 j 22:08	3° \mathbb{B} 59'53			1531 Feb 07 j 06:53	0° \mathbb{Z}	
evening set	1526 Apr 07 j 17:41	11° \mathbb{B} 47'19			1531 Mar 21 j 20:59	0° \approx	
	1526 May 03 j 13:04	0° \mathbb{I}			1531 May 03 j 12:33	0° \mathbb{X}	
					1531 Jun 17 j 18:46	0° \mathbb{Y}	
conjunction	1526 Jun 02 j 18:12	20° \mathbb{I} 40'51	0°38'30	retrograde	1531 Aug 31 j 20:59	29° \mathbb{Y} 00'33	
minimum elong	1526 Jun 02 j 16:37	20° \mathbb{I} 38'10	0°38'28	min. Earth dist.	1531 Sep 27 j 22:27	24° \mathbb{Y} 02'34	0.43233 AU
	1526 Jun 16 j 16:12	0° \mathbb{B}		opposition	1531 Oct 05 j 20:10	21° \mathbb{Y} 25'48	-2°-31'-4
max. Earth dist.	1526 Jun 26 j 20:33	6° \mathbb{B} 44'30	2.60005 AU	greatest brilliancy	1531 Oct 04 j 20:43	21° \mathbb{Y} 45'19	-2.5m
morning rise	1526 Jul 23 j 10:08	24° \mathbb{B} 04'22		direct	1531 Nov 06 j 13:38	15° \mathbb{Y} 14'16	
	1526 Aug 01 j 15:08	0° Ω		asc. node	1531 Nov 17 j 18:39	16° \mathbb{Y} 02'53	
	1526 Sep 18 j 02:06	0° \mathbb{M}			1531 Dec 30 j 19:56	0° \mathbb{B}	
	1526 Nov 06 j 01:56	0° Ω			1532 Feb 25 j 14:46	0° \mathbb{I}	
	1526 Dec 27 j 23:47	0° \mathbb{M}			1532 Apr 16 j 09:10	0° \mathbb{B}	
	1527 Mar 02 j 00:49	0° \mathbb{X}			1532 Jun 04 j 15:15	0° Ω	
retrograde	1527 Apr 08 j 09:28	7° \mathbb{X} 09'23			1532 Jul 22 j 19:26	0° \mathbb{M}	
desc. node	1527 Apr 15 j 04:09	6° \mathbb{X} 52'20		evening set	1532 Aug 10 j 07:47	11° \mathbb{M} 45'24	
opposition	1527 May 12 j 17:24	0° \mathbb{X} 20'19	-1°-25'-4	max. Earth dist.	1532 Sep 05 j 11:00	28° \mathbb{M} 37'23	2.62801 AU
greatest brilliancy	1527 May 13 j 09:45	0° \mathbb{X} 06'24	-2.2m		1532 Sep 07 j 13:37	0° Ω	
	1527 May 13 j 17:16	30° \mathbb{R} \mathbb{M}					
min. Earth dist.	1527 May 21 j 06:08	27° \mathbb{M} 26'48	0.48318 AU	conjunction	1532 Sep 25 j 04:16	11° Ω 35'34	0°38'49
direct	1527 Jun 19 j 10:58	21° \mathbb{M} 58'15		minimum elong	1532 Sep 25 j 05:23	11° Ω 37'26	0°38'49
	1527 Jul 25 j 19:01	0° \mathbb{X}			1532 Oct 22 j 13:34	0° \mathbb{M}	
	1527 Sep 17 j 21:02	0° \mathbb{Z}		morning rise	1532 Nov 10 j 11:06	12° \mathbb{M} 59'12	
	1527 Oct 30 j 14:21	0° \approx			1532 Dec 04 j 16:56	0° \mathbb{X}	
	1527 Dec 09 j 23:33	0° \mathbb{X}		desc. node	1532 Dec 05 j 01:12	0° \mathbb{X} 14'40	
	1528 Jan 19 j 08:31	0° \mathbb{Y}			1533 Jan 15 j 04:11	0° \mathbb{Z}	
asc. node	1528 Feb 12 j 20:07	17° \mathbb{Y} 49'59			1533 Feb 24 j 08:37	0° \approx	
	1528 Feb 29 j 20:21	0° \mathbb{B}			1533 Apr 04 j 21:13	0° \mathbb{X}	
	1528 Apr 13 j 00:30	0° \mathbb{I}			1533 May 14 j 16:35	0° \mathbb{Y}	
evening set	1528 May 25 j 22:57	28° \mathbb{I} 42'09			1533 Jun 25 j 08:02	0° \mathbb{B}	
	1528 May 27 j 22:21	0° \mathbb{B}			1533 Aug 11 j 12:30	0° \mathbb{I}	
				asc. node	1533 Oct 04 j 18:07	21° \mathbb{I} 55'21	
conjunction	1528 Jul 13 j 22:43	0° Ω 27'48	1°06'18	retrograde	1533 Oct 17 j 22:23	23° \mathbb{I} 06'30	
minimum elong	1528 Jul 13 j 22:01	0° Ω 26'41	1°06'18	min. Earth dist.	1533 Nov 19 j 06:54	16° \mathbb{I} 01'34	0.56170 AU
	1528 Jul 13 j 05:22	0° Ω		opposition	1533 Nov 25 j 22:21	13° \mathbb{I} 26'24	2°20'30
max. Earth dist.	1528 Jul 21 j 02:53	5° Ω 03'28	2.66374 AU	greatest brilliancy	1533 Nov 25 j 01:37	13° \mathbb{I} 46'36	-1.8m
morning rise	1528 Aug 28 j 16:46	29° Ω 37'40		direct	1534 Jan 01 j 01:56	5° \mathbb{I} 14'56	
	1528 Aug 29 j 06:50	0° \mathbb{M}			1534 Mar 19 j 21:37	0° \mathbb{B}	
	1528 Oct 15 j 13:29	0° Ω			1534 May 14 j 06:43	0° Ω	
	1528 Dec 01 j 20:38	0° \mathbb{M}			1534 Jul 03 j 15:36	0° \mathbb{M}	
	1529 Jan 18 j 12:27	0° \mathbb{X}			1534 Aug 20 j 03:03	0° Ω	
desc. node	1529 Mar 02 j 03:38	26° \mathbb{X} 03'17		evening set	1534 Sep 18 j 05:47	19° Ω 15'27	
	1529 Mar 08 j 19:53	0° \mathbb{Z}			1534 Oct 04 j 00:56	0° \mathbb{M}	
	1529 May 04 j 21:30	0° \approx		max. Earth dist.	1534 Oct 04 j 21:11	0° \mathbb{M} 34'48	2.53303 AU
retrograde	1529 Jun 20 j 09:11	11° \approx 24'26		desc. node	1534 Oct 22 j 23:50	13° \mathbb{M} 10'23	
opposition	1529 Jul 20 j 10:43	6° \approx 27'04	-6°-44'-41				
greatest brilliancy	1529 Jul 21 j 03:11	6° \approx 16'08	-2.8m	conjunction	1534 Nov 06 j 10:55	23° \mathbb{M} 25'57	0°-8'-47
min. Earth dist.	1529 Jul 22 j 15:14	5° \approx 52'14	0.37695 AU	minimum elong	1534 Nov 06 j 10:30	23° \mathbb{M} 25'13	0°08'48
direct	1529 Aug 19 j 20:33	1° \approx 16'49		behind sun begin	1534 Nov 05 j 16:09	22° \mathbb{M} 52'23	
	1529 Nov 04 j 15:13	0° \mathbb{X}		behind sun end	1534 Nov 07 j 04:52	23° \mathbb{M} 58'04	
	1529 Dec 22 j 02:23	0° \mathbb{Y}			1534 Nov 15 j 13:59	0° \mathbb{X}	
asc. node	1529 Dec 30 j 18:26	5° \mathbb{Y} 42'20			1534 Dec 26 j 03:44	0° \mathbb{Z}	
	1530 Feb 05 j 10:26	0° \mathbb{B}		morning rise	1534 Dec 29 j 22:14	2° \mathbb{Z} 50'57	
	1530 Mar 23 j 01:46	0° \mathbb{I}			1535 Feb 03 j 08:04	0° \approx	
	1530 May 08 j 14:13	0° \mathbb{B}			1535 Mar 13 j 20:40	0° \mathbb{X}	

	1535 Apr 21 j 14:12	0°Υ	direct	1540 Apr 22 j 07:51	21°η08'46	
	1535 May 31 j 12:23	0°Ϡ		1540 Jun 02 j 12:41	0°♄	
	1535 Jul 12 j 21:43	0°Π	desc. node	1540 Jun 13 j 21:09	4°♄43'26	
asc. node	1535 Aug 22 j 16:14	26°Π10'29		1540 Jul 30 j 19:52	0°♍	
	1535 Aug 29 j 03:28	0°☿		1540 Sep 14 j 04:47	0°♁	
	1535 Nov 04 j 23:36	0°♂		1540 Oct 25 j 03:52	0°♂	
retrograde	1535 Nov 24 j 10:54	2°♂18'56		1540 Dec 03 j 00:43	0°≈	
	1535 Dec 12 j 20:24	30°♁☿		1541 Jan 10 j 05:51	0°♁	
min. Earth dist.	1535 Dec 31 j 14:51	23°☿34'02	0.65104 AU	1541 Feb 17 j 21:54	0°Υ	
opposition	1536 Jan 03 j 14:51	22°☿21'53	4°15'36	1541 Mar 15 j 09:09	19°Υ15'25	
greatest brilliancy	1536 Jan 02 j 23:17	22°☿37'29	-1.3m	1541 Mar 29 j 21:23	0°Ϡ	
direct	1536 Feb 11 j 21:59	13°☿03'06		1541 Apr 13 j 13:00	10°Ϡ40'05	
	1536 Apr 14 j 06:37	0°♂		1541 May 10 j 17:54	0°Π	
	1536 Jun 11 j 01:30	0°η				
	1536 Jul 30 j 15:37	0°♄	conjunction	1541 May 14 j 11:14	2°Π35'50	0°19'04
desc. node	1536 Sep 08 j 22:37	26°♄28'01	minimum elong	1541 May 14 j 10:08	2°Π33'56	0°19'04
	1536 Sep 14 j 02:59	0°♍	max. Earth dist.	1541 Jun 15 j 10:29	24°Π28'16	2.56099 AU
	1536 Oct 26 j 13:20	0°♁		1541 Jun 23 j 16:35	0°☿	
evening set	1536 Nov 03 j 00:11	5°♁27'22	morning rise	1541 Jul 07 j 09:11	9°☿04'17	
max. Earth dist.	1536 Nov 22 j 23:57	20°♁21'04		1541 Aug 08 j 15:27	0°♂	
	1536 Dec 05 j 17:10	0°♂		1541 Sep 25 j 11:52	0°η	
				1541 Nov 14 j 19:42	0°♄	
conjunction	1536 Dec 31 j 07:11	19°♂45'07	0°-58'-41	1542 Jan 10 j 10:21	0°♍	
minimum elong	1536 Dec 31 j 05:11	19°♂41'12	0°58'42	1542 Mar 17 j 16:30	18°♍55'31	
	1537 Jan 13 j 09:40	0°≈	retrograde	1542 Apr 22 j 15:23	11°♍22'13	0°25'52
	1537 Feb 20 j 11:49	0°♁	opposition	1542 Apr 22 j 20:40	11°♍17'27	-1.9m
morning rise	1537 Mar 09 j 02:22	13°♁02'48	greatest brilliancy	1542 Apr 30 j 15:10	8°♍29'35	0.53534 AU
	1537 Mar 30 j 21:05	0°Υ	min. Earth dist.	1542 Apr 30 j 15:10	8°♍29'35	0.53534 AU
	1537 May 09 j 10:10	0°Ϡ	desc. node	1542 May 01 j 19:26	8°♍04'56	
	1537 Jun 19 j 22:52	0°Π	direct	1542 Jun 01 j 02:43	2°♍10'45	
asc. node	1537 Jul 09 j 15:35	13°Π35'43		1542 Aug 16 j 05:06	0°♁	
	1537 Aug 03 j 08:20	0°☿		1542 Sep 30 j 11:08	0°♂	
	1537 Sep 21 j 07:59	0°♂		1542 Nov 10 j 01:37	0°≈	
	1537 Nov 23 j 19:44	0°η		1542 Dec 19 j 08:50	0°♁	
retrograde	1537 Dec 27 j 22:24	6°η11'18	asc. node	1543 Jan 27 j 23:06	0°Υ	
	1538 Jan 28 j 03:16	30°♁♂		1543 Mar 01 j 12:34	24°Υ00'29	
opposition	1538 Feb 05 j 21:22	26°♂36'17	4°28'55	1543 Mar 09 j 19:33	0°Ϡ	
greatest brilliancy	1538 Feb 06 j 00:36	26°♂33'05	-1.2m	1543 Apr 21 j 10:57	0°Π	
min. Earth dist.	1538 Feb 06 j 18:37	26°♂15'09	0.67714 AU	1543 May 09 j 07:44	12°Π11'11	
direct	1538 Mar 18 j 22:30	16°♂42'27		1543 Jun 04 j 23:23	0°☿	
	1538 May 11 j 11:32	0°η	conjunction	1543 Jun 29 j 12:25	16°☿04'55	0°59'15
	1538 Jul 08 j 09:09	0°♄	minimum elong	1543 Jun 29 j 11:11	16°☿02'55	0°59'14
desc. node	1538 Jul 27 j 22:07	11°♄52'47	max. Earth dist.	1543 Jul 12 j 18:58	24°☿40'38	2.64517 AU
	1538 Aug 24 j 21:39	0°♍		1543 Jul 21 j 01:27	0°♂	
	1538 Oct 06 j 20:50	0°♁	morning rise	1543 Aug 15 j 16:47	16°♂23'03	
	1538 Nov 16 j 00:45	0°♂		1543 Sep 06 j 04:17	0°η	
	1538 Dec 24 j 13:37	0°≈		1543 Oct 23 j 22:13	0°♄	
evening set	1539 Jan 05 j 01:13	9°≈03'44		1543 Dec 11 j 09:45	0°♍	
	1539 Jan 31 j 12:52	0°♁		1544 Jan 30 j 19:38	0°♁	
	1539 Mar 10 j 21:47	0°Υ	desc. node	1544 Mar 18 j 18:41	25°♁27'00	
				1544 Mar 28 j 20:39	0°♂	
conjunction	1539 Mar 14 j 00:35	2°Υ24'09	0°-44'-47	1544 May 19 j 09:04	13°♂00'10	
minimum elong	1539 Mar 14 j 03:44	2°Υ30'13	0°44'45	1544 Jun 19 j 18:09	7°♂30'31	-5°-2'-49
	1539 Apr 19 j 12:23	0°Ϡ	greatest brilliancy	1544 Jun 21 j 06:07	7°♂04'01	-2.6m
max. Earth dist.	1539 May 04 j 07:02	10°Ϡ51'35	2.43223 AU	1544 Jun 26 j 04:12	5°♂37'43	0.40679 AU
morning rise	1539 May 19 j 03:46	21°Ϡ35'14	min. Earth dist.	1544 Jun 23 j 03:51	1°♂08'01	
asc. node	1539 May 27 j 14:39	27°Ϡ35'57	direct	1544 Oct 06 j 11:29	0°≈	
	1539 May 31 j 00:19	0°Π		1544 Nov 20 j 20:15	0°♁	
	1539 Jul 13 j 19:57	0°☿		1545 Jan 02 j 17:56	0°Υ	
	1539 Aug 29 j 08:36	0°♂	asc. node	1545 Jan 16 j 11:46	9°Υ36'58	
	1539 Oct 18 j 17:20	0°η		1545 Feb 14 j 21:48	0°Ϡ	
	1539 Dec 18 j 23:11	0°♄		1545 Mar 31 j 06:08	0°Π	
retrograde	1540 Feb 02 j 08:18	9°♄58'50		1545 May 15 j 23:20	0°☿	
opposition	1540 Mar 11 j 23:46	1°♄08'45	3°20'53	1545 Jun 20 j 03:33	22°☿36'44	
greatest brilliancy	1540 Mar 12 j 18:05	0°♄50'58	-1.4m	1545 Jul 01 j 17:25	0°♂	
	1540 Mar 14 j 22:35	30°♁η				
min. Earth dist.	1540 Mar 16 j 17:01	29°η19'01	0.63719 AU	conjunction	1545 Aug 05 j 21:46	22°♂23'24 1°08'44

minimum elong	1545 Aug 05 j 21:59	22°023'45	1°08'44		1550 Apr 29 j 22:23	0°Υ	
max. Earth dist.	1545 Aug 04 j 13:50	21°032'36	2.67577 AU		1550 Jun 09 j 05:40	0°Ϸ	
	1545 Aug 17 j 20:37	0°η			1550 Jul 22 j 12:15	0°Π	
morning rise	1545 Sep 19 j 11:00	20°η50'05		asc. node	1550 Sep 08 j 09:17	28°Π32'21	
	1545 Oct 03 j 17:00	0°♊			1550 Sep 11 j 05:36	0°♄	
	1545 Nov 18 j 20:24	0°♋		retrograde	1550 Nov 10 j 12:35	18°♄14'33	
	1546 Jan 03 j 04:54	0°♌		min. Earth dist.	1550 Dec 15 j 22:42	10°♄04'59	0.62313 AU
desc. node	1546 Feb 03 j 18:20	21°♌07'15		opposition	1550 Dec 20 j 10:35	8°♄17'25	3°45'57
	1546 Feb 16 j 23:32	0°♍		greatest brilliancy	1550 Dec 19 j 13:51	8°♄38'05	-1.5m
	1546 Apr 02 j 17:53	0°♎			1551 Jan 17 j 13:04	30°♋	
	1546 May 19 j 12:07	0°♏		direct	1551 Jan 27 j 16:43	29°♋20'14	
	1546 Jul 26 j 07:41	0°♐			1551 Feb 07 j 06:08	0°♄	
retrograde	1546 Aug 07 j 03:54	0°♐57'49			1551 Apr 28 j 01:21	0°♊	
	1546 Aug 18 j 23:41	30°♋			1551 Jun 20 j 15:14	0°η	
min. Earth dist.	1546 Sep 02 j 18:53	26°♋30'51	0.39096 AU		1551 Aug 08 j 03:51	0°♊	
greatest brilliancy	1546 Sep 07 j 08:40	25°♋10'59	-2.8m		1551 Sep 22 j 08:08	0°♋	
opposition	1546 Sep 08 j 13:13	24°♋50'08	-5°-7'-38	desc. node	1551 Sep 26 j 15:12	2°♋57'22	
direct	1546 Oct 08 j 11:36	19°♋32'51		evening set	1551 Oct 15 j 06:56	16°♋00'29	
	1546 Nov 21 j 03:44	0°♐		max. Earth dist.	1551 Oct 29 j 23:37	26°♋31'35	2.45631 AU
asc. node	1546 Dec 04 j 10:28	6°♐00'51			1551 Nov 03 j 18:35	0°♌	
	1547 Jan 17 j 13:17	0°Ϸ					
	1547 Mar 08 j 05:19	0°Π		conjunction	1551 Dec 08 j 04:32	25°♌32'50	0°-42'-4
	1547 Apr 25 j 17:11	0°♄		minimum elong	1551 Dec 08 j 02:29	25°♌28'58	0°42'03
	1547 Jun 12 j 22:55	0°♊			1551 Dec 14 j 01:25	0°♍	
evening set	1547 Jul 27 j 22:02	28°♊14'42			1552 Jan 21 j 21:36	0°♎	
	1547 Jul 30 j 16:29	0°η		morning rise	1552 Feb 08 j 04:15	13°♎32'38	
max. Earth dist.	1547 Aug 27 j 20:33	18°η00'04	2.65178 AU	greatest brilliancy	1552 Feb 25 j 05:54	26°♎57'43	1.2m
					1552 Feb 29 j 02:41	0°♏	
conjunction	1547 Sep 11 j 10:56	27°η27'04	0°51'49		1552 Apr 07 j 13:46	0°♐	
minimum elong	1547 Sep 11 j 12:04	27°η28'55	0°51'49		1552 May 17 j 04:22	0°Ϸ	
	1547 Sep 15 j 08:49	0°♊			1552 Jun 27 j 20:55	0°Π	
morning rise	1547 Oct 26 j 12:57	27°♊17'12		asc. node	1552 Jul 26 j 06:54	19°Π16'27	
	1547 Oct 30 j 13:28	0°♋			1552 Aug 11 j 20:53	0°♄	
	1547 Dec 13 j 02:56	0°♌			1552 Oct 02 j 07:56	0°♊	
desc. node	1547 Dec 22 j 16:43	6°♌44'33		retrograde	1552 Dec 14 j 13:38	23°♊28'26	
	1548 Jan 24 j 04:10	0°♍		opposition	1553 Jan 23 j 18:00	13°♊41'53	4°33'25
	1548 Mar 05 j 00:52	0°♎		min. Earth dist.	1553 Jan 23 j 02:39	13°♊57'13	0.67488 AU
	1548 Apr 14 j 07:21	0°♏		greatest brilliancy	1553 Jan 23 j 13:32	13°♊46'20	-1.2m
	1548 May 25 j 02:25	0°♐		direct	1553 Mar 05 j 06:45	3°♊58'40	
	1548 Jul 07 j 19:23	0°Ϸ			1553 May 25 j 07:25	0°η	
	1548 Sep 04 j 00:12	0°Π			1553 Jul 17 j 07:41	0°♊	
retrograde	1548 Oct 01 j 02:06	4°Π47'35		desc. node	1553 Aug 13 j 14:10	17°♊15'04	
asc. node	1548 Oct 21 j 09:49	1°Π47'28			1553 Sep 01 j 18:44	0°♋	
	1548 Oct 27 j 02:43	30°♋			1553 Oct 14 j 11:02	0°♌	
min. Earth dist.	1548 Oct 31 j 06:45	28°♋31'20	0.51267 AU		1553 Nov 23 j 13:58	0°♍	
opposition	1548 Nov 08 j 00:14	25°♋37'28	0°53'36	evening set	1553 Dec 09 j 02:39	11°♍58'41	
greatest brilliancy	1548 Nov 07 j 13:53	25°♋47'10	-2.1m		1554 Jan 01 j 03:29	0°♎	
direct	1548 Dec 12 j 12:33	18°♋05'43			1554 Feb 08 j 02:53	0°♏	
	1549 Jan 30 j 13:58	0°Π					
	1549 Mar 31 j 16:53	0°♄		conjunction	1554 Feb 12 j 21:34	3°♏46'12	-1°-1'-41
	1549 May 22 j 16:56	0°♊		minimum elong	1554 Feb 12 j 23:32	3°♏50'04	1°01'41
	1549 Jul 10 j 23:32	0°η			1554 Mar 18 j 10:44	0°♐	
	1549 Aug 27 j 02:16	0°♊		max. Earth dist.	1554 Mar 26 j 21:09	6°♐29'53	2.38200 AU
evening set	1549 Sep 02 j 13:30	4°♊13'54		morning rise	1554 Apr 24 j 01:07	27°♐49'18	
max. Earth dist.	1549 Sep 22 j 08:30	17°♊21'51	2.57559 AU		1554 Apr 26 j 23:21	0°Ϸ	
	1549 Oct 10 j 23:50	0°♋			1554 Jun 07 j 09:32	0°Π	
				asc. node	1554 Jun 13 j 06:19	4°Π06'59	
conjunction	1549 Oct 19 j 23:01	6°♋10'29	0°11'44		1554 Jul 21 j 07:06	0°♄	
minimum elong	1549 Oct 19 j 23:29	6°♋11'18	0°11'43		1554 Sep 06 j 09:03	0°♊	
behind sun begin	1549 Oct 19 j 09:13	5°♋46'38			1554 Oct 29 j 00:22	0°η	
behind sun end	1549 Oct 20 j 13:45	6°♋36'00		retrograde	1555 Jan 18 j 15:50	26°η45'44	
desc. node	1549 Nov 08 j 15:41	19°♋57'39		opposition	1555 Feb 26 j 23:05	17°η35'17	3°57'21
	1549 Nov 22 j 17:23	0°♌		greatest brilliancy	1555 Feb 27 j 12:54	17°η21'43	-1.3m
morning rise	1549 Dec 08 j 18:05	11°♌37'14		min. Earth dist.	1555 Mar 02 j 04:54	16°η18'55	0.66062 AU
	1550 Jan 02 j 14:11	0°♍		direct	1555 Apr 09 j 09:18	7°η33'38	
	1550 Feb 11 j 02:19	0°♎			1555 Jun 20 j 08:03	0°♊	
	1550 Mar 21 j 22:06	0°♏		desc. node	1555 Jul 01 j 12:22	5°♊55'51	

	1555 Aug 10 j 17:39	0°♌		conjunction	1560 Jul 22 j 10:43	8°♌51'17	1°08'24
	1555 Sep 23 j 18:57	0°♍		minimum elong	1560 Jul 22 j 10:22	8°♌50'43	1°08'23
	1555 Nov 03 j 07:37	0°♎		max. Earth dist.	1560 Jul 26 j 10:37	11°♌24'14	2.67034 AU
	1555 Dec 11 j 23:56	0°♏			1560 Aug 24 j 15:38	0°♐	
	1556 Jan 19 j 01:33	0°♑		morning rise	1560 Sep 05 j 15:26	7°♐37'44	
evening set	1556 Feb 18 j 01:32	23°♑26'30			1560 Oct 10 j 17:47	0°♑	
	1556 Feb 26 j 13:32	0°♒			1560 Nov 26 j 13:04	0°♌	
	1556 Apr 06 j 08:11	0°♉			1561 Jan 12 j 04:29	0°♍	
				desc. node	1561 Feb 20 j 09:31	25°♍01'30	
conjunction	1556 Apr 22 j 12:00	11°♉49'06	0°-4'-59		1561 Feb 28 j 07:05	0°♎	
minimum elong	1556 Apr 22 j 12:21	11°♉49'44	0°05'00		1561 Apr 18 j 22:02	0°♏	
behind sun begin	1556 Apr 21 j 11:40	11°♉05'02		retrograde	1561 Jul 08 j 13:44	29°♏31'42	
behind sun end	1556 Apr 23 j 13:02	12°♉34'22		opposition	1561 Aug 07 j 21:54	24°♏26'56	-6°-48'-12
asc. node	1556 Apr 30 j 06:33	17°♉25'18		min. Earth dist.	1561 Aug 07 j 00:05	24°♏41'28	0.37325 AU
	1556 May 17 j 23:40	0°♊		greatest brilliancy	1561 Aug 07 j 18:40	24°♏29'05	-2.9m
max. Earth dist.	1556 Jun 01 j 23:46	10°♊26'44	2.51421 AU	direct	1561 Sep 06 j 14:33	19°♏31'41	
morning rise	1556 Jun 19 j 16:12	22°♊31'33			1561 Oct 19 j 06:37	0°♑	
	1556 Jun 30 j 19:10	0°♋			1561 Dec 13 j 08:31	0°♒	
	1556 Aug 15 j 20:00	0°♌		asc. node	1561 Dec 21 j 02:51	4°♒47'26	
	1556 Oct 03 j 07:15	0°♍			1562 Jan 29 j 20:10	0°♉	
	1556 Nov 24 j 18:56	0°♎			1562 Mar 17 j 11:43	0°♊	
	1557 Feb 03 j 23:31	0°♏			1562 May 03 j 13:29	0°♋	
retrograde	1557 Feb 26 j 22:28	2°♏53'36			1562 Jun 20 j 01:46	0°♌	
	1557 Mar 20 j 08:55	30°♏45'03	1°50'07	evening set	1562 Jul 13 j 12:04	14°♌47'13	
opposition	1557 Apr 05 j 03:33	24°♏45'03	1°50'07		1562 Aug 06 j 12:03	0°♍	
greatest brilliancy	1557 Apr 05 j 20:25	24°♏29'15	-1.7m	max. Earth dist.	1562 Aug 18 j 18:30	7°♍49'15	2.66769 AU
min. Earth dist.	1557 Apr 12 j 00:53	22°♏10'27	0.58161 AU				
direct	1557 May 15 j 16:59	15°♏04'25		conjunction	1562 Aug 28 j 03:58	13°♍50'14	1°01'18
desc. node	1557 May 18 j 11:07	15°♏07'22		minimum elong	1562 Aug 28 j 04:53	13°♍51'41	1°01'18
	1557 Jul 08 j 12:48	0°♌			1562 Sep 22 j 04:39	0°♎	
	1557 Aug 29 j 01:09	0°♍		morning rise	1562 Oct 11 j 15:24	12°♎43'14	
	1557 Oct 10 j 16:12	0°♎			1562 Nov 06 j 16:08	0°♏	
	1557 Nov 19 j 07:01	0°♏			1562 Dec 20 j 18:42	0°♍	
	1557 Dec 28 j 00:00	0°♑		desc. node	1563 Jan 08 j 09:06	12°♍55'45	
	1558 Feb 05 j 02:39	0°♒			1563 Feb 01 j 14:21	0°♎	
	1558 Mar 17 j 12:37	0°♉			1563 Mar 15 j 10:14	0°♏	
asc. node	1558 Mar 18 j 04:58	0°♉29'41			1563 Apr 25 j 22:05	0°♑	
evening set	1558 Apr 19 j 19:10	23°♉44'26			1563 Jun 07 j 17:30	0°♒	
	1558 Apr 28 j 18:40	0°♊			1563 Jul 27 j 17:32	0°♉	
				retrograde	1563 Sep 13 j 00:55	13°♉23'58	
conjunction	1558 Jun 12 j 21:20	0°♋35'21	0°47'30	min. Earth dist.	1563 Oct 11 j 03:05	7°♉58'43	0.46051 AU
minimum elong	1558 Jun 12 j 19:46	0°♋32'44	0°47'29	opposition	1563 Oct 19 j 06:57	5°♉07'03	-1°-6'-46
	1558 Jun 12 j 00:03	0°♋		greatest brilliancy	1563 Oct 18 j 18:52	5°♉17'40	-2.3m
max. Earth dist.	1558 Jul 02 j 22:41	13°♋47'51	2.61836 AU		1563 Nov 05 j 17:37	30°♒♑	
	1558 Jul 27 j 22:53	0°♌		asc. node	1563 Nov 08 j 01:24	29°♑33'19	
morning rise	1558 Aug 01 j 02:50	2°♌40'22		direct	1563 Nov 21 j 00:27	28°♑24'21	
	1558 Sep 13 j 05:32	0°♍			1563 Dec 07 j 01:33	0°♉	
	1558 Oct 31 j 15:56	0°♎			1564 Feb 17 j 15:25	0°♊	
	1558 Dec 20 j 23:15	0°♏			1564 Apr 10 j 12:18	0°♋	
	1559 Feb 15 j 00:32	0°♍			1564 May 30 j 13:21	0°♌	
desc. node	1559 Apr 05 j 10:11	17°♍37'02			1564 Jul 18 j 01:51	0°♍	
retrograde	1559 Apr 22 j 08:22	19°♍15'17		evening set	1564 Aug 18 j 15:22	20°♍04'04	
opposition	1559 May 25 j 14:09	12°♍53'59	-2°-40'-32		1564 Sep 02 j 23:07	0°♎	
greatest brilliancy	1559 May 26 j 18:18	12°♍31'02	-2.3m	max. Earth dist.	1564 Sep 11 j 09:04	5°♎30'51	2.61164 AU
min. Earth dist.	1559 Jun 02 j 21:29	10°♍12'05	0.45431 AU				
direct	1559 Jul 01 j 00:47	5°♍08'52		conjunction	1564 Oct 03 j 20:48	20°♎28'10	0°29'46
	1559 Sep 07 j 20:19	0°♎		minimum elong	1564 Oct 03 j 21:47	20°♎29'49	0°29'46
	1559 Oct 23 j 05:25	0°♏			1564 Oct 17 j 22:30	0°♌	
	1559 Dec 03 j 15:34	0°♑		morning rise	1564 Nov 20 j 03:11	23°♌02'12	
	1560 Jan 13 j 15:09	0°♒		desc. node	1564 Nov 25 j 07:49	26°♌42'44	
asc. node	1560 Feb 03 j 03:22	14°♒47'46			1564 Nov 29 j 22:44	0°♍	
	1560 Feb 24 j 13:25	0°♉			1565 Jan 10 j 04:47	0°♎	
	1560 Apr 08 j 01:04	0°♊			1565 Feb 19 j 03:01	0°♏	
	1560 May 23 j 04:18	0°♋			1565 Mar 30 j 08:27	0°♑	
evening set	1560 Jun 04 j 09:38	7°♋58'00			1565 May 08 j 18:43	0°♒	
	1560 Jul 08 j 14:14	0°♌			1565 Jun 18 j 17:42	0°♉	
					1565 Aug 02 j 18:33	0°♊	

asc. node	1565 Sep 25 j 00:09	26°II52'59			1570 Aug 19 j 12:51	0°ML	
	1565 Oct 05 j 02:23	0°S			1570 Oct 01 j 20:37	0°J	
retrograde	1565 Oct 26 j 20:48	3°S02'15			1570 Nov 11 j 03:33	0°S	
	1565 Nov 16 j 13:20	30°RL			1570 Dec 19 j 17:31	0°≈	
min. Earth dist.	1565 Nov 29 j 08:29	25°II33'01	0.58596 AU	evening set	1571 Jan 20 j 22:37	25°≈26'38	
greatest brilliancy	1565 Dec 04 j 08:25	23°II34'58	-1.7m		1571 Jan 26 j 17:06	0°H	
opposition	1565 Dec 05 j 06:57	23°II12'46	2°58'33		1571 Mar 06 j 02:15	0°Y	
direct	1566 Jan 11 j 06:42	14°II42'56					
	1566 Mar 10 j 05:17	0°S		conjunction	1571 Mar 29 j 11:48	17°Y51'44	0°-31'00
	1566 May 08 j 05:19	0°Q		minimum elong	1571 Mar 29 j 14:13	17°Y56'18	0°30'59
	1566 Jun 28 j 12:52	0°M			1571 Apr 14 j 17:19	0°B	
	1566 Aug 15 j 08:46	0°A		max. Earth dist.	1571 May 17 j 02:37	23°B32'33	2.46221 AU
evening set	1566 Sep 27 j 15:39	28°A48'54		asc. node	1571 May 17 j 21:42	24°B06'32	
	1566 Sep 29 j 09:08	0°ML			1571 May 26 j 05:19	0°II	
max. Earth dist.	1566 Oct 12 j 23:12	9°ML24'26	2.50695 AU	morning rise	1571 May 31 j 18:03	3°II53'00	
desc. node	1566 Oct 13 j 06:20	9°ML36'54			1571 Jul 08 j 23:30	0°S	
	1566 Nov 10 j 21:45	0°J			1571 Aug 24 j 05:42	0°Q	
					1571 Oct 12 j 16:37	0°M	
conjunction	1566 Nov 17 j 05:25	4°J35'46	0°-21'-8		1571 Dec 08 j 04:05	0°A	
minimum elong	1566 Nov 17 j 04:23	4°J33'53	0°21'09	retrograde	1572 Feb 11 j 05:59	18°A20'52	
	1566 Dec 21 j 09:21	0°S		opposition	1572 Mar 20 j 10:57	9°A44'06	2°52'26
morning rise	1567 Jan 12 j 08:12	16°S45'30		greatest brilliancy	1572 Mar 21 j 06:10	9°A25'38	-1.5m
	1567 Jan 29 j 11:01	0°≈		min. Earth dist.	1572 Mar 25 j 23:39	7°A36'55	0.61984 AU
	1567 Mar 08 j 20:47	0°H			1572 Apr 25 j 04:02	30°RM	
	1567 Apr 16 j 11:21	0°Y		direct	1572 Apr 30 j 14:59	29°M48'26	
	1567 May 26 j 05:29	0°B			1572 May 06 j 04:21	0°A	
	1567 Jul 07 j 05:41	0°II		desc. node	1572 Jun 04 j 02:21	6°A20'19	
asc. node	1567 Aug 13 j 00:00	24°II14'34			1572 Jul 23 j 12:07	0°ML	
	1567 Aug 22 j 07:30	0°S			1572 Sep 08 j 07:45	0°J	
	1567 Oct 18 j 10:45	0°Q			1572 Oct 19 j 18:12	0°S	
retrograde	1567 Dec 02 j 05:17	10°Q29'17			1572 Nov 27 j 20:33	0°≈	
min. Earth dist.	1568 Jan 09 j 06:50	1°Q26'54	0.66223 AU		1573 Jan 05 j 05:06	0°H	
opposition	1568 Jan 11 j 10:50	0°Q34'49	4°26'05		1573 Feb 12 j 23:52	0°Y	
greatest brilliancy	1568 Jan 10 j 22:56	0°Q46'44	-1.3m		1573 Mar 25 j 01:55	0°B	
	1568 Jan 12 j 21:40	30°RS		evening set	1573 Mar 28 j 22:27	2°B49'06	
direct	1568 Feb 20 j 06:13	21°S06'04		asc. node	1573 Apr 03 j 21:23	7°B08'54	
	1568 Apr 02 j 22:52	0°Q			1573 May 06 j 00:28	0°II	
	1568 Jun 04 j 21:16	0°M					
	1568 Jul 25 j 11:32	0°A		conjunction	1573 May 25 j 16:42	13°II35'22	0°30'50
desc. node	1568 Aug 30 j 05:22	23°A11'57		minimum elong	1573 May 25 j 15:14	13°II32'50	0°30'50
	1568 Sep 09 j 06:52	0°ML			1573 Jun 19 j 00:16	0°S	
	1568 Oct 21 j 19:37	0°J		max. Earth dist.	1573 Jun 22 j 06:26	2°S10'07	2.58350 AU
evening set	1568 Nov 15 j 05:58	18°J04'52		morning rise	1573 Jul 16 j 16:53	18°S14'16	
	1568 Nov 30 j 23:15	0°S			1573 Aug 03 j 21:47	0°Q	
max. Earth dist.	1568 Dec 17 j 02:03	12°S24'30	2.38215 AU		1573 Sep 20 j 11:35	0°M	
	1569 Jan 08 j 14:44	0°≈			1573 Nov 08 j 22:42	0°A	
					1574 Jan 01 j 08:52	0°ML	
conjunction	1569 Jan 15 j 07:47	5°≈16'44	-1°-3'-52	retrograde	1574 Mar 29 j 13:47	29°ML24'11	
minimum elong	1569 Jan 15 j 06:48	5°≈14'47	1°03'54	desc. node	1574 Apr 22 j 02:01	25°ML58'56	
	1569 Feb 15 j 15:39	0°H		opposition	1574 May 03 j 15:58	22°ML14'27	0°-34'-21
	1569 Mar 25 j 23:52	0°Y		greatest brilliancy	1574 May 03 j 22:47	22°ML08'28	-2.0m
morning rise	1569 Mar 26 j 06:26	0°Y12'42		min. Earth dist.	1574 May 12 j 01:38	19°ML18'17	0.50678 AU
	1569 May 04 j 12:01	0°B		direct	1574 Jun 11 j 06:53	13°ML27'26	
	1569 Jun 14 j 22:27	0°II			1574 Aug 05 j 08:55	0°J	
asc. node	1569 Jun 29 j 22:55	10°II26'55			1574 Sep 23 j 03:37	0°S	
	1569 Jul 29 j 01:13	0°S			1574 Nov 03 j 18:43	0°≈	
	1569 Sep 15 j 01:51	0°Q			1574 Dec 13 j 14:44	0°H	
	1569 Nov 11 j 06:36	0°M			1575 Jan 22 j 13:47	0°Y	
retrograde	1570 Jan 04 j 17:07	13°M56'58		asc. node	1575 Feb 19 j 19:30	20°Y42'39	
opposition	1570 Feb 13 j 11:57	4°M29'48	4°20'41		1575 Mar 04 j 17:23	0°B	
greatest brilliancy	1570 Feb 13 j 19:15	4°M22'34	-1.2m		1575 Apr 16 j 14:20	0°II	
min. Earth dist.	1570 Feb 15 j 05:27	3°M48'42	0.67406 AU	evening set	1575 May 19 j 13:48	22°II14'54	
	1570 Feb 25 j 06:55	30°RL			1575 May 31 j 06:49	0°S	
direct	1570 Mar 26 j 18:15	24°Q31'56					
	1570 Apr 28 j 00:04	0°M		conjunction	1575 Jul 08 j 10:55	24°S51'41	1°03'52
	1570 Jul 01 j 22:27	0°A		minimum elong	1575 Jul 08 j 10:00	24°S50'11	1°03'52
desc. node	1570 Jul 18 j 04:15	9°A31'19			1575 Jul 16 j 10:37	0°Q	

max. Earth dist.	1575 Jul 18 j 07:02	1°♏11'18	2.65648 AU	greatest brilliancy	1580 Nov 17 j 17:56	6°♐46'28	-1.9m
morning rise	1575 Aug 23 j 18:30	24°♏27'30			1580 Dec 09 j 09:29	30°♐♌	
	1575 Sep 01 j 12:07	0°♐		direct	1580 Dec 23 j 23:06	28°♌34'32	
	1575 Oct 18 j 23:12	0°♑			1581 Jan 08 j 09:26	0°♐	
	1575 Dec 05 j 17:26	0°♒			1581 Mar 24 j 09:44	0°♑	
	1576 Jan 23 j 09:30	0°♓			1581 May 17 j 03:42	0°♏	
desc. node	1576 Mar 09 j 01:50	26°♓37'37			1581 Jul 06 j 01:18	0°♐	
	1576 Mar 15 j 06:02	0°♑			1581 Aug 22 j 09:58	0°♑	
retrograde	1576 Jun 06 j 00:27	28°♑50'18		evening set	1581 Sep 11 j 09:43	13°♑08'41	
opposition	1576 Jul 06 j 12:08	23°♑43'51	-6°-11'-22	max. Earth dist.	1581 Sep 29 j 06:23	25°♑09'07	2.55298 AU
greatest brilliancy	1576 Jul 07 j 17:05	23°♑23'55	-2.8m		1581 Oct 06 j 08:53	0°♒	
min. Earth dist.	1576 Jul 10 j 21:56	22°♑31'17	0.38706 AU				
direct	1576 Aug 07 j 01:59	18°♑06'25		conjunction	1581 Oct 29 j 16:44	16°♒12'38	0°00'08
	1576 Sep 21 j 00:58	0°♒		minimum elong	1581 Oct 29 j 16:46	16°♒12'41	0°00'09
	1576 Nov 11 j 22:18	0°♓		behind sun begin	1581 Oct 28 j 20:07	15°♒36'20	
	1576 Dec 26 j 19:32	0°♑		behind sun end	1581 Oct 30 j 13:24	16°♒49'03	
asc. node	1577 Jan 06 j 17:39	7°♑25'52		desc. node	1581 Oct 29 j 22:08	16°♒22'06	
	1577 Feb 08 j 23:55	0°♌			1581 Nov 18 j 01:09	0°♓	
	1577 Mar 25 j 23:07	0°♐		morning rise	1581 Dec 20 j 08:25	23°♓41'20	
	1577 May 11 j 01:44	0°♑			1581 Dec 28 j 18:46	0°♑	
	1577 Jun 27 j 01:11	0°♏			1582 Feb 06 j 02:57	0°♒	
evening set	1577 Jun 28 j 19:51	1°♏07'46			1582 Mar 16 j 18:37	0°♓	
max. Earth dist.	1577 Aug 09 j 19:26	27°♏47'50	2.67530 AU		1582 Apr 24 j 14:15	0°♑	
	1577 Aug 13 j 06:27	0°♐			1582 Jun 03 j 14:49	0°♌	
					1582 Jul 16 j 05:45	0°♐	
conjunction	1577 Aug 14 j 01:18	0°♐30'02	1°07'06	asc. node	1582 Aug 29 j 15:43	27°♐50'59	
minimum elong	1577 Aug 14 j 01:48	0°♐30'50	1°07'05		1582 Sep 02 j 10:50	0°♑	
morning rise	1577 Sep 27 j 10:29	28°♐57'34		retrograde	1582 Nov 28 14:01	26°♑53'14	
	1577 Sep 29 j 01:06	0°♑		min. Earth dist.	1583 Jan 04 00:08	18°♑23'33	0.63979 AU
	1577 Nov 13 j 22:11	0°♒		opposition	1583 Jan 07 16:16	16°♑55'27	4°05'20
	1577 Dec 28 j 18:42	0°♓		greatest brilliancy	1583 Jan 06 22:06	17°♑13'37	-1.4m
desc. node	1578 Jan 25 j 00:30	18°♓32'08		direct	1583 Feb 15 13:10	7°♑45'33	
	1578 Feb 10 j 17:17	0°♑			1583 Apr 30 05:08	0°♏	
	1578 Mar 26 j 03:07	0°♒			1583 Jun 25 00:10	0°♐	
	1578 May 09 j 01:50	0°♓			1583 Aug 13 04:11	0°♑	
	1578 Jun 26 j 20:03	0°♑		desc. node	1583 Sep 26 20:53	29°♑31'08	
retrograde	1578 Aug 21 j 16:55	17°♑44'33			1583 Sep 27 13:46	0°♒	
min. Earth dist.	1578 Sep 17 j 06:45	13°♑04'16	0.41170 AU	evening set	1583 Nov 05 04:40	27°♒11'28	
greatest brilliancy	1578 Sep 23 j 08:02	11°♑10'45	-2.6m		1583 Nov 09 01:36	0°♓	
opposition	1578 Sep 24 j 12:36	10°♑48'14	-3°-39'-32	max. Earth dist.	1583 Nov 21 12:03	9°♓07'00	2.42807 AU
direct	1578 Oct 25 j 10:08	5°♑02'20			1583 Dec 19 07:43	0°♑	
asc. node	1578 Nov 24 j 17:57	10°♑25'44					
	1579 Jan 07 j 19:43	0°♌		conjunction	1583 Dec 31 09:15	9°♑14'21	0°-52'-26
	1579 Mar 01 j 15:13	0°♐		minimum elong	1583 Dec 31 07:01	9°♑10'03	0°52'26
	1579 Apr 20 j 06:28	0°♑			1584 Jan 27 02:28	0°♒	
	1579 Jun 08 j 00:56	0°♏		morning rise	1584 Mar 05 18:00	0°♓23'38	
	1579 Jul 26 j 00:38	0°♐			1584 Mar 05 05:59	0°♓	
evening set	1579 Aug 05 j 04:02	6°♐25'51			1584 Apr 12 15:25	0°♑	
max. Earth dist.	1579 Sep 02 j 09:24	24°♐32'48	2.63969 AU		1584 May 22 04:01	0°♌	
	1579 Sep 10 j 18:42	0°♑			1584 Jul 02 16:33	0°♐	
				asc. node	1584 Jul 26 14:57	16°♐25'59	
conjunction	1579 Sep 19 j 19:22	5°♑54'44	0°44'41		1584 Aug 16 05:10	0°♑	
minimum elong	1579 Sep 19 j 20:31	5°♑56'37	0°44'40		1584 Oct 04 21:48	0°♏	
	1579 Oct 25 j 21:28	0°♒			1584 Dec 17 16:34	0°♐	
morning rise	1579 Nov 04 j 11:13	6°♒31'11		retrograde	1585 Jan 01 05:05	1°♐15'48	
	1579 Dec 08 j 06:06	0°♓			1585 Jan 15 01:50	30°♐♏	
desc. node	1579 Dec 12 j 23:10	3°♓19'54		opposition	1585 Feb 10 07:33	21°♏35'12	4°32'10
	1580 Jan 18 j 23:54	0°♑		greatest brilliancy	1585 Feb 10 07:23	21°♏35'22	-1.2m
	1580 Feb 28 j 11:36	0°♒		min. Earth dist.	1585 Feb 10 12:32	21°♏30'14	0.67739 AU
	1580 Apr 08 j 07:23	0°♓		direct	1585 Mar 23 04:14	11°♏45'32	
	1580 May 18 j 10:54	0°♑			1585 May 27 00:06	0°♐	
	1580 Jun 29 j 17:26	0°♌			1585 Jul 21 13:22	0°♑	
	1580 Aug 18 j 07:40	0°♐		desc. node	1585 Aug 13 20:03	14°♑24'16	
retrograde	1580 Oct 10 j 21:41	15°♐58'12			1585 Sep 06 15:49	0°♒	
asc. node	1580 Oct 11 j 17:32	15°♐57'54			1585 Oct 19 13:24	0°♓	
min. Earth dist.	1580 Nov 11 j 07:02	9°♐14'57	0.54046 AU		1585 Nov 28 17:45	0°♑	
opposition	1580 Nov 18 j 11:49	6°♐29'18	1°47'33	evening set	1586 Jan 03 00:21	27°♑24'30	

	1586 Jan 06 07:26	0°♊			1590 Aug 02 06:53	0°♎	
	1586 Feb 13 06:47	0°♋		morning rise	1590 Aug 19 13:38	11°♎03'50	
conjunction	1586 Mar 11 11:14	20°♋34'05	0°-53'-34		1590 Sep 18 10:41	0°♏	
minimum elong	1586 Mar 11 14:19	20°♋40'04	0°53'34		1590 Nov 05 10:42	0°♐	
	1586 Mar 23 14:38	0°♑			1590 Dec 24 14:26	0°♑	
max. Earth dist.	1586 May 01 05:52	29°♑19'59	2.40838 AU	desc. node	1591 Feb 14 20:00	0°♒	
	1586 May 02 03:24	0°♒			1591 Apr 05 16:50	23°♒36'55	
morning rise	1586 May 18 16:54	12°♒11'12		retrograde	1591 Apr 26 09:48	0°♓	
	1586 Jun 12 13:12	0°♓			1591 May 17 13:57	2°♓33'14	
asc. node	1586 Jun 13 14:24	0°♓44'25		opposition	1591 Jun 06 23:00	30°♓♒	
	1586 Jul 26 07:49	0°♓		greatest brilliancy	1591 Jun 18 18:27	26°♒40'50	-4°-1'-25
	1586 Sep 10 23:38	0°♎		min. Earth dist.	1591 Jun 20 05:58	26°♒13'19	-2.5m
	1586 Nov 01 01:16	0°♏		direct	1591 Jun 26 06:52	24°♒21'56	0.42671 AU
	1587 Jan 07 02:26	0°♐			1591 Jul 23 14:07	19°♒39'53	
retrograde	1587 Feb 05 21:56	4°♐43'27			1591 Sep 02 18:43	0°♑	
	1587 Mar 05 07:11	30°♑♏			1591 Oct 24 13:43	0°♒	
opposition	1587 Mar 16 21:44	25°♑43'40	3°37'35		1591 Dec 06 17:18	0°♋	
greatest brilliancy	1587 Mar 17 14:17	25°♑27'31	-1.3m	asc. node	1592 Jan 17 14:24	0°♑	
min. Earth dist.	1587 Mar 20 23:30	24°♑08'25	0.64894 AU		1592 Feb 03 11:07	11°♑59'50	
direct	1587 Apr 27 08:20	15°♑42'06			1592 Feb 29 02:28	0°♒	
	1587 Jun 20 20:49	0°♐			1592 Apr 12 23:43	0°♓	
desc. node	1587 Jul 01 19:14	5°♐10'46		evening set	1592 May 28 09:17	0°♓	
	1587 Aug 14 13:42	0°♑			1592 Jun 23 12:42	16°♓54'38	
	1587 Sep 28 09:17	0°♒			1592 Jul 13 22:51	0°♎	
	1587 Nov 08 04:20	0°♓		conjunction	1592 Aug 09 18:59	17°♎06'40	1°09'04
	1587 Dec 16 23:25	0°♊		minimum elong	1592 Aug 09 18:59	17°♎06'39	1°09'03
	1588 Jan 24 02:44	0°♋		max. Earth dist.	1592 Aug 10 18:26	17°♎43'58	2.67440 AU
	1588 Mar 02 16:07	0°♑			1592 Aug 30 01:00	0°♏	
evening set	1588 Mar 14 07:03	8°♑52'32		morning rise	1592 Sep 23 13:43	15°♏38'26	
	1588 Apr 11 12:20	0°♒			1592 Oct 15 23:52	0°♐	
asc. node	1588 Apr 30 12:32	13°♒51'25			1592 Dec 01 10:12	0°♑	
					1593 Jan 16 07:27	0°♒	
conjunction	1588 May 15 08:16	24°♒26'47	0°09'21	desc. node	1593 Feb 20 16:22	23°♒14'57	
minimum elong	1588 May 15 07:39	24°♒25'42	0°09'20		1593 Mar 02 23:08	0°♓	
behind sun begin	1588 May 14 11:31	23°♒50'03			1593 Apr 18 07:31	0°♊	
behind sun end	1588 May 16 03:47	25°♒01'19			1593 Jun 08 05:45	0°♋	
	1588 May 23 05:19	0°♓		retrograde	1593 Aug 04 19:16	17°♋50'58	
max. Earth dist.	1588 Jun 19 23:37	19°♓10'22	2.54105 AU	min. Earth dist.	1593 Sep 01 04:50	13°♋22'43	0.37925 AU
	1588 Jul 06 01:09	0°♓		greatest brilliancy	1593 Sep 04 05:32	12°♋32'29	-2.8m
morning rise	1588 Jul 10 00:16	2°♓38'31		opposition	1593 Sep 05 02:17	12°♋18'08	-6°-4'-49
	1588 Aug 20 23:26	0°♎		direct	1593 Oct 04 14:33	7°♋17'29	
	1588 Oct 08 00:28	0°♏			1593 Dec 12 03:14	0°♑	
	1588 Nov 28 01:41	0°♐		asc. node	1593 Dec 21 09:56	5°♑03'58	
	1589 Jan 27 03:01	0°♑			1594 Feb 01 12:32	0°♒	
retrograde	1589 Mar 19 06:13	12°♑15'04			1594 Mar 21 14:55	0°♓	
opposition	1589 Apr 24 20:01	4°♑25'01	1°04'20		1594 May 08 09:40	0°♓	
greatest brilliancy	1589 Apr 25 07:39	4°♑14'19	-1.8m		1594 Jun 25 06:53	0°♎	
min. Earth dist.	1589 May 02 09:28	1°♑38'36	0.55701 AU	evening set	1594 Jul 31 19:13	22°♎58'37	
	1589 May 07 02:44	30°♑♐			1594 Aug 11 21:18	0°♏	
desc. node	1589 May 18 17:40	26°♐43'57		max. Earth dist.	1594 Sep 03 02:57	14°♏11'23	2.65990 AU
direct	1589 Jun 03 21:31	24°♐58'17					
	1589 Jul 02 21:56	0°♑		conjunction	1594 Sep 15 08:01	22°♏03'08	0°56'12
	1589 Aug 31 14:04	0°♒		minimum elong	1594 Sep 15 09:05	22°♏04'50	0°56'11
	1589 Oct 14 12:32	0°♓			1594 Sep 27 14:08	0°♐	
	1589 Nov 23 15:32	0°♊		morning rise	1594 Oct 30 01:51	21°♐23'27	
	1590 Jan 01 15:34	0°♋			1594 Nov 11 22:28	0°♑	
	1590 Feb 09 23:19	0°♑			1594 Dec 25 18:18	0°♒	
asc. node	1590 Mar 18 11:45	27°♑02'33		desc. node	1595 Jan 08 14:36	9°♒41'38	
	1590 Mar 22 13:37	0°♒			1595 Feb 06 03:52	0°♓	
	1590 May 03 23:21	0°♓			1595 Mar 19 10:21	0°♊	
evening set	1590 May 11 04:08	4°♓57'39			1595 Apr 29 04:07	0°♋	
	1590 Jun 17 07:18	0°♓			1595 Jun 09 14:50	0°♑	
					1595 Jul 24 23:06	0°♒	
conjunction	1590 Jul 02 13:28	10°♓03'34	0°54'53	retrograde	1595 Oct 04 03:53	26°♒24'04	
minimum elong	1590 Jul 02 12:04	10°♓01'16	0°54'53	min. Earth dist.	1595 Nov 02 09:25	20°♒31'09	0.48932 AU
max. Earth dist.	1590 Jul 18 20:54	20°♓41'29	2.63426 AU	asc. node	1595 Nov 08 08:55	18°♒20'19	

opposition	1595 Nov 10 10:45	17°♄34'36	0°06'39	evening set	1600 Dec 08 07:42	1°♄36'00
greatest brilliancy	1596 Sep 10 16:16	1°♄31'27	-5.5m			
direct	1595 Dec 14 04:10	10°♄23'47				
	1596 Feb 18 01:18	0°♄				
	1596 Apr 14 06:25	0°♄				
	1596 Jun 04 08:17	0°♄				
	1596 Jul 23 07:09	0°♄				
evening set	1596 Sep 06 02:48	28°♄33'06				
	1596 Sep 08 08:12	0°♄				
max. Earth dist.	1596 Sep 27 12:51	12°♄37'55	2.59254 AU			
conjunction	1596 Oct 22 21:54	29°♄43'34	0°19'39			
minimum elong	1596 Oct 22 22:37	29°♄44'48	0°19'39			
	1596 Oct 23 07:31	0°♄				
desc. node	1596 Nov 25 13:38	23°♄08'15				
	1596 Dec 05 04:58	0°♄				
morning rise	1596 Dec 10 10:58	3°♄46'00				
	1597 Jan 15 06:34	0°♄				
	1597 Feb 23 23:30	0°♄				
	1597 Apr 03 23:32	0°♄				
	1597 May 13 03:19	0°♄				
	1597 Jun 22 15:15	0°♄				
	1597 Aug 05 10:00	0°♄				
asc. node	1597 Sep 25 08:27	28°♄52'20				
	1597 Sep 27 19:35	0°♄				
retrograde	1597 Nov 14 09:06	12°♄21'01				
min. Earth dist.	1597 Dec 18 23:07	4°♄28'58	0.60762 AU			
greatest brilliancy	1597 Dec 23 04:36	2°♄48'21	-1.5m			
opposition	1597 Dec 24 02:46	2°♄26'20	3°28'42			
	1597 Dec 30 10:01	30°♄				
direct	1598 Jan 30 20:15	23°♄40'31				
	1598 Mar 06 17:00	0°♄				
	1598 May 11 17:45	0°♄				
	1598 Jul 03 07:14	0°♄				
	1598 Aug 20 13:31	0°♄				
	1598 Oct 04 17:20	0°♄				
desc. node	1598 Oct 13 13:17	6°♄05'24				
evening set	1598 Oct 17 11:18	8°♄48'53				
max. Earth dist.	1598 Oct 31 22:57	19°♄01'04	2.47925 AU			
	1598 Nov 16 05:56	0°♄				
conjunction	1598 Dec 08 18:08	16°♄32'52	0°-33'-21			
minimum elong	1598 Dec 08 16:29	16°♄29'47	0°33'22			
	1598 Dec 26 15:40	0°♄				
	1599 Feb 03 14:35	0°♄				
morning rise	1599 Feb 06 00:19	1°♄52'32				
	1599 Mar 13 21:43	0°♄				
	1599 Apr 21 09:43	0°♄				
greatest brilliancy	1599 May 10 01:17	14°♄16'09	1.2m			
	1599 May 31 00:37	0°♄				
	1599 Jul 11 18:31	0°♄				
asc. node	1599 Aug 13 06:25	21°♄50'48				
	1599 Aug 26 01:13	0°♄				
	1599 Oct 18 00:52	0°♄				
retrograde	1599 Dec 19 21:29	18°♄27'37				
min. Earth dist.	1600 Jan 27 19:52	9°♄08'40	0.67057 AU			
opposition	1600 Jan 29 03:20	8°♄37'11	4°31'54			
greatest brilliancy	1600 Jan 28 19:32	8°♄44'59	-1.3m			
	1600 Feb 25 19:40	30°♄				
direct	1600 Mar 09 09:11	28°♄59'52				
	1600 Mar 22 12:50	0°♄				
	1600 Jun 08 04:40	0°♄				
	1600 Jul 30 03:28	0°♄				
desc. node	1600 Aug 30 12:06	20°♄02'59				
	1600 Sep 14 09:05	0°♄				
	1600 Oct 27 01:18	0°♄				
	1600 Dec 06 05:32	0°♄				

conjunction	1601 Feb 10 04:21	21° \approx 34'29	-1°-4'-33			1606 Mar 05 12:43	0° \mathcal{Z}	
minimum elong	1601 Feb 10 05:00	21° \approx 35'47	1°04'34	retrograde		1606 Apr 21 12:25	10° \mathcal{Z} 41'58	
max. Earth dist.	1601 Feb 16 17:18	26° \approx 44'35	2.37053 AU	desc. node		1606 Apr 22 08:15	10° \mathcal{Z} 41'43	
	1601 Feb 20 20:18	0° \mathcal{H}		opposition		1606 May 25 14:39	3° \mathcal{Z} 58'00	-1°-43'-10
	1601 Mar 31 03:35	0° \mathcal{Y}		greatest brilliancy		1606 May 26 10:15	3° \mathcal{Z} 41'27	-2.2m
morning rise	1601 Apr 21 21:41	16° \mathcal{Y} 41'00		min. Earth dist.		1606 Jun 03 02:24	1° \mathcal{Z} 06'09	0.47782 AU
	1601 May 09 14:43	0° \mathcal{B}				1606 Jun 06 13:21	30° $\mathcal{R}\mathcal{M}$	
	1601 Jun 19 23:26	0° \mathcal{I}		direct		1606 Jul 02 03:24	25° \mathcal{M} 41'48	
asc. node	1601 Jun 30 05:26	7° \mathcal{I} 10'50				1606 Jul 28 00:18	0° \mathcal{Z}	
	1601 Aug 02 20:58	0° \mathcal{S}				1606 Sep 24 16:01	0° \mathcal{Z}	
	1601 Sep 19 05:06	0° \mathcal{Q}				1606 Nov 06 23:36	0° \approx	
	1601 Nov 12 04:06	0° \mathcal{M}				1606 Dec 17 13:40	0° \mathcal{H}	
retrograde	1602 Jan 22 14:57	21° \mathcal{M} 44'55				1607 Jan 27 00:16	0° \mathcal{Y}	
opposition	1602 Mar 03 04:34	12° \mathcal{M} 26'32	4°08'22	asc. node		1607 Feb 20 02:27	17° \mathcal{Y} 32'36	
greatest brilliancy	1602 Mar 03 15:39	12° \mathcal{M} 15'37	-1.3m			1607 Mar 09 12:14	0° \mathcal{B}	
min. Earth dist.	1602 Mar 05 18:31	11° \mathcal{M} 25'31	0.66796 AU			1607 Apr 21 15:49	0° \mathcal{I}	
direct	1602 Apr 13 14:20	2° \mathcal{M} 25'55				1607 Jun 05 12:53	0° \mathcal{S}	
	1602 Jul 04 18:55	0° \mathcal{A}		evening set		1607 Jun 08 08:30	1° \mathcal{S} 50'57	
desc. node	1602 Jul 18 10:21	7° \mathcal{A} 35'23				1607 Jul 21 19:16	0° \mathcal{Q}	
	1602 Aug 23 22:16	0° \mathcal{M}						
	1602 Oct 06 17:08	0° \mathcal{Z}		conjunction		1607 Jul 27 03:18	3° \mathcal{Q} 25'12	1°07'01
	1602 Nov 16 04:13	0° \mathcal{Z}		minimum elong		1607 Jul 27 02:43	3° \mathcal{Q} 24'15	1°07'01
	1602 Dec 24 19:53	0° \approx		max. Earth dist.		1607 Aug 02 15:57	7° \mathcal{Q} 35'44	2.66516 AU
greatest brilliancy	1602 Dec 28 03:55	2° \approx 37'24	1.2m			1607 Sep 06 20:12	0° \mathcal{M}	
	1603 Jan 31 20:32	0° \mathcal{H}		morning rise		1607 Sep 10 18:27	2° \mathcal{M} 29'40	
evening set	1603 Feb 15 21:19	11° \mathcal{H} 48'59				1607 Oct 24 01:49	0° \mathcal{A}	
	1603 Mar 11 06:34	0° \mathcal{Y}				1607 Dec 10 06:25	0° \mathcal{M}	
	1603 Apr 19 22:23	0° \mathcal{B}				1608 Jan 26 16:18	0° \mathcal{Z}	
				desc. node		1608 Mar 09 07:19	26° \mathcal{Z} 20'58	
conjunction	1603 Apr 23 00:29	2° \mathcal{B} 16'54	0°-16'-7			1608 Mar 15 08:56	0° \mathcal{Z}	
minimum elong	1603 Apr 23 01:44	2° \mathcal{B} 19'13	0°16'06			1608 May 08 17:36	0° \approx	
asc. node	1603 May 18 05:47	20° \mathcal{B} 37'01		retrograde		1608 Jul 04 10:31	16° \approx 09'13	
	1603 May 31 10:55	0° \mathcal{I}		opposition		1608 Aug 03 11:55	11° \approx 11'45	-6°-49'-32
max. Earth dist.	1603 Jun 06 06:11	4° \mathcal{I} 04'26	2.49142 AU	greatest brilliancy		1608 Aug 04 01:06	11° \approx 03'00	-2.9m
morning rise	1603 Jun 22 09:41	15° \mathcal{I} 15'31		min. Earth dist.		1608 Aug 05 03:04	10° \approx 45'44	0.37560 AU
	1603 Jul 14 04:04	0° \mathcal{S}		direct		1608 Sep 02 19:08	6° \approx 05'37	
	1603 Aug 29 05:25	0° \mathcal{Q}				1608 Nov 10 09:14	0° \mathcal{H}	
	1603 Oct 16 23:56	0° \mathcal{M}				1608 Dec 29 01:16	0° \mathcal{Y}	
	1603 Dec 09 17:25	0° \mathcal{A}		asc. node		1609 Jan 07 02:06	5° \mathcal{Y} 52'46	
retrograde	1604 Mar 01 12:47	26° \mathcal{A} 59'05				1609 Feb 12 18:01	0° \mathcal{B}	
opposition	1604 Apr 08 05:59	18° \mathcal{A} 37'07	2°18'24			1609 Mar 30 12:40	0° \mathcal{I}	
greatest brilliancy	1604 Apr 09 00:31	18° \mathcal{A} 19'33	-1.6m			1609 May 16 02:27	0° \mathcal{S}	
min. Earth dist.	1604 Apr 14 13:42	16° \mathcal{A} 13'35	0.59985 AU			1609 Jul 02 08:21	0° \mathcal{Q}	
direct	1604 May 19 04:00	8° \mathcal{A} 48'16		evening set		1609 Jul 17 06:45	9° \mathcal{Q} 27'01	
desc. node	1604 Jun 04 09:07	10° \mathcal{A} 24'53				1609 Aug 18 16:20	0° \mathcal{M}	
	1604 Jul 24 22:42	0° \mathcal{M}		max. Earth dist.		1609 Aug 25 01:01	4° \mathcal{M} 03'08	2.67216 AU
	1604 Sep 12 01:08	0° \mathcal{Z}						
	1604 Oct 24 03:22	0° \mathcal{Z}		conjunction		1609 Sep 01 03:15	8° \mathcal{M} 34'50	1°04'09
	1604 Dec 02 12:28	0° \approx		minimum elong		1609 Sep 01 04:01	8° \mathcal{M} 36'03	1°04'09
	1605 Jan 10 01:17	0° \mathcal{H}				1609 Oct 04 10:06	0° \mathcal{A}	
	1605 Feb 17 23:31	0° \mathcal{Y}		morning rise		1609 Oct 15 12:20	7° \mathcal{A} 12'49	
	1605 Mar 30 04:39	0° \mathcal{B}				1609 Nov 19 02:17	0° \mathcal{M}	
asc. node	1605 Apr 04 04:19	3° \mathcal{B} 37'53				1610 Jan 02 12:47	0° \mathcal{Z}	
evening set	1605 Apr 20 15:35	15° \mathcal{B} 28'57		desc. node		1610 Jan 25 06:57	15° \mathcal{Z} 40'49	
	1605 May 11 06:03	0° \mathcal{I}				1610 Feb 14 19:48	0° \mathcal{Z}	
						1610 Mar 29 06:17	0° \approx	
conjunction	1605 Jun 15 06:54	23° \mathcal{I} 57'40	0°41'04			1610 May 10 14:34	0° \mathcal{H}	
minimum elong	1605 Jun 15 05:17	23° \mathcal{I} 54'57	0°41'03			1610 Jun 24 00:48	0° \mathcal{Y}	
	1605 Jun 24 07:29	0° \mathcal{S}				1610 Aug 23 01:05	0° \mathcal{B}	
max. Earth dist.	1605 Jul 08 14:57	9° \mathcal{S} 28'29	2.60378 AU	retrograde		1610 Sep 13 19:29	3° \mathcal{B} 15'14	
morning rise	1605 Aug 04 15:53	27° \mathcal{S} 05'01				1610 Oct 05 05:27	30° $\mathcal{R}\mathcal{Y}$	
	1605 Aug 09 04:35	0° \mathcal{Q}		min. Earth dist.		1610 Oct 11 03:00	28° \mathcal{Y} 11'38	0.43770 AU
	1605 Sep 25 13:08	0° \mathcal{M}		greatest brilliancy		1610 Oct 18 05:16	25° \mathcal{Y} 48'48	-2.5m
	1605 Nov 13 08:18	0° \mathcal{A}		opposition		1610 Oct 19 02:19	25° \mathcal{Y} 31'03	-2°-9'-24
	1606 Jan 03 17:21	0° \mathcal{M}		direct		1610 Nov 19 23:39	19° \mathcal{Y} 13'12	

asc. node	1610 Nov 25 01:09	19° Υ 23'23		conjunction	1616 Jan 14 14:16	23° Z 57'14	-1°00'-18
	1611 Jan 04 04:52	0° B		minimum elong	1616 Jan 14 12:27	23° Z 53'41	1°00'18
	1611 Mar 04 08:50	0° II			1616 Jan 22 07:37	0° \approx	
	1611 Apr 24 14:37	0° S			1616 Feb 29 09:41	0° K	
	1611 Jun 13 01:17	0° Ω		morning rise	1616 Mar 22 22:02	17° K 41'05	
	1611 Jul 31 08:18	0° M			1616 Apr 07 17:59	0° Υ	
evening set	1611 Aug 23 09:55	14° M 38'21			1616 May 17 05:12	0° B	
	1611 Sep 16 04:47	0° A			1616 Jun 27 14:56	0° II	
max. Earth dist.	1611 Sep 18 02:43	1° A 14'57	2.62523 AU	asc. node	1616 Jul 16 22:44	13° II 23'48	
					1616 Aug 10 19:19	0° S	
conjunction	1611 Oct 08 07:15	14° A 33'10	0°36'25		1616 Sep 28 07:26	0° Ω	
minimum elong	1611 Oct 08 08:20	14° A 34'58	0°36'24		1616 Nov 27 19:21	0° M	
	1611 Oct 31 06:41	0° M		retrograde	1617 Jan 08 21:57	9° M 00'57	
morning rise	1611 Nov 23 18:09	16° M 08'43			1617 Feb 16 12:25	30° R Ω	
desc. node	1611 Dec 13 05:53	29° M 50'07		opposition	1617 Feb 17 21:13	29° Ω 27'28	4°26'46
	1611 Dec 13 11:28	0° J		greatest brilliancy	1617 Feb 18 01:17	29° Ω 23'25	-1.2m
	1612 Jan 23 23:23	0° Z		min. Earth dist.	1617 Feb 18 22:45	29° Ω 02'07	0.67685 AU
	1612 Mar 04 03:36	0° \approx		direct	1617 Mar 31 00:11	19° Ω 32'42	
	1612 Apr 12 14:52	0° K			1617 May 16 12:27	0° M	
	1612 May 22 07:05	0° Υ			1617 Jul 15 10:26	0° A	
	1612 Jul 02 15:28	0° B		desc. node	1617 Aug 04 02:19	11° A 48'29	
	1612 Aug 17 21:52	0° II			1617 Sep 01 10:12	0° M	
asc. node	1612 Oct 11 23:19	24° II 12'36			1617 Oct 14 14:48	0° J	
retrograde	1612 Oct 30 05:20	26° II 24'57			1617 Nov 23 21:38	0° Z	
min. Earth dist.	1612 Dec 01 18:49	19° II 15'46	0.56662 AU		1618 Jan 01 11:47	0° \approx	
greatest brilliancy	1612 Dec 07 10:04	17° II 04'03	-1.8m	evening set	1618 Jan 18 13:15	13° \approx 27'56	
opposition	1612 Dec 08 07:48	16° II 42'51	2°32'06		1618 Feb 08 11:05	0° K	
direct	1613 Jan 13 16:40	8° II 27'30			1618 Mar 18 19:01	0° Υ	
	1613 Mar 25 23:26	0° S					
	1613 May 21 08:26	0° Ω		conjunction	1618 Mar 27 13:19	6° Υ 45'01	0°-41'-38
	1613 Jul 11 01:08	0° M		minimum elong	1618 Mar 27 16:23	6° Υ 50'53	0°41'37
	1613 Aug 27 16:59	0° A			1618 Apr 27 07:52	0° B	
evening set	1613 Sep 30 12:34	22° A 21'49		max. Earth dist.	1618 May 17 17:03	14° B 57'37	2.43791 AU
	1613 Oct 11 18:00	0° M		morning rise	1618 Jun 01 04:25	25° B 21'39	
max. Earth dist.	1613 Oct 16 17:32	3° M 25'24	2.52831 AU	asc. node	1618 Jun 03 21:08	27° B 16'37	
desc. node	1613 Oct 30 04:39	12° M 46'58			1618 Jun 07 17:30	0° II	
					1618 Jul 21 10:09	0° S	
conjunction	1613 Nov 18 22:55	26° M 48'28	0°-11'-59		1618 Sep 05 18:20	0° Ω	
minimum elong	1613 Nov 18 22:22	26° M 47'28	0°11'59		1618 Oct 25 17:06	0° M	
behind sun begin	1613 Nov 18 07:29	26° M 20'47			1618 Dec 23 20:52	0° A	
behind sun end	1613 Nov 19 13:14	27° M 14'10		retrograde	1619 Feb 14 12:33	12° A 54'24	
	1613 Nov 23 09:20	0° J		opposition	1619 Mar 25 03:05	4° A 06'50	3°12'58
	1614 Jan 03 00:34	0° Z		greatest brilliancy	1619 Mar 25 21:30	3° A 49'03	-1.4m
morning rise	1614 Jan 11 21:16	6° Z 42'22		min. Earth dist.	1619 Mar 30 00:51	2° A 13'09	0.63404 AU
	1614 Feb 11 05:32	0° \approx			1619 Apr 05 00:08	30° R M	
	1614 Mar 21 17:55	0° K		direct	1619 May 05 11:31	24° M 07'36	
	1614 Apr 29 10:08	0° Υ			1619 Jun 07 05:03	0° A	
	1614 Jun 08 05:30	0° B		desc. node	1619 Jun 22 00:33	5° A 35'14	
	1614 Jul 20 09:18	0° II			1619 Aug 07 19:18	0° M	
asc. node	1614 Aug 29 23:14	26° II 20'12			1619 Sep 22 17:13	0° J	
	1614 Sep 05 01:18	0° S			1619 Nov 02 21:42	0° Z	
	1614 Nov 06 06:30	0° Ω			1619 Dec 11 21:06	0° \approx	
retrograde	1614 Dec 06 11:08	5° Ω 14'12			1620 Jan 19 03:04	0° K	
	1615 Jan 03 11:35	30° R S			1620 Feb 26 18:42	0° Υ	
min. Earth dist.	1615 Jan 12 20:07	26° S 25'43	0.65343 AU	evening set	1620 Mar 28 13:38	23° Υ 14'44	
opposition	1615 Jan 15 16:02	25° S 17'44	4°19'21		1620 Apr 06 16:50	0° B	
greatest brilliancy	1615 Jan 15 01:09	25° S 32'39	-1.3m	asc. node	1620 Apr 20 20:36	10° B 19'46	
direct	1615 Feb 24 02:10	15° S 56'44			1620 May 18 11:28	0° II	
	1615 Apr 20 19:04	0° Ω					
	1615 Jun 19 02:31	0° M		conjunction	1620 May 27 04:44	6° II 04'47	0°22'16
	1615 Aug 08 02:32	0° A		minimum elong	1620 May 27 03:30	6° II 02'40	0°22'14
desc. node	1615 Sep 17 03:26	26° A 09'49		max. Earth dist.	1620 Jun 27 06:12	27° II 16'15	2.56536 AU
	1615 Sep 22 19:03	0° M			1620 Jul 01 07:59	0° S	
	1615 Nov 04 08:36	0° J		morning rise	1620 Jul 19 17:14	12° S 10'42	
evening set	1615 Nov 16 18:42	9° J 06'11			1620 Aug 16 04:28	0° Ω	
max. Earth dist.	1615 Dec 08 12:33	25° J 22'59	2.40087 AU		1620 Oct 02 21:27	0° M	
	1615 Dec 14 14:18	0° Z			1620 Nov 21 21:38	0° A	

	1621 Jan 16 07:39	0°♌			1626 May 03 01:36	0°♍	
retrograde	1621 Mar 30 10:23	22°♌12'05			1626 Jun 20 10:05	0°♎	
opposition	1621 May 05 05:18	14°♌43'23	0°10'44		1626 Aug 07 05:44	0°♏	
greatest brilliancy	1621 Apr 01 12:16	22°♌10'30	-2.2m	evening set	1626 Aug 09 01:17	1°♏08'57	
desc. node	1621 May 08 23:56	13°♌21'46		max. Earth dist.	1626 Sep 08 13:14	20°♏38'19	2.64979 AU
min. Earth dist.	1621 May 13 07:45	11°♌49'15	0.52978 AU		1626 Sep 22 23:52	0°♐	
direct	1621 Jun 13 13:56	5°♌36'00					
	1621 Aug 22 14:39	0°♑		conjunction	1626 Sep 23 13:48	0°♐22'42	0°49'54
	1621 Oct 07 18:12	0°♒		minimum elong	1626 Sep 23 14:56	0°♐24'34	0°49'53
	1621 Nov 17 15:25	0°♓		morning rise	1626 Nov 07 17:48	0°♑20'08	
	1621 Dec 27 01:20	0°♐			1626 Nov 07 05:53	0°♑	
	1622 Feb 04 16:25	0°♑			1626 Dec 20 20:02	0°♒	
asc. node	1622 Mar 08 19:12	23°♑41'20		desc. node	1626 Dec 29 21:01	6°♒21'49	
	1622 Mar 17 12:36	0°♓			1627 Jan 31 21:14	0°♒	
	1622 Apr 29 03:09	0°♑			1627 Mar 13 17:05	0°♓	
evening set	1622 May 21 20:44	15°♑29'09			1627 Apr 22 21:32	0°♐	
	1622 Jun 12 14:28	0°♍			1627 Jun 02 11:53	0°♑	
					1627 Jul 15 15:50	0°♓	
conjunction	1622 Jul 11 18:23	19°♍06'03	1°00'38		1627 Sep 07 21:14	0°♑	
minimum elong	1622 Jul 11 17:13	19°♍04'10	1°00'39	retrograde	1627 Oct 14 12:43	8°♑18'53	
max. Earth dist.	1622 Jul 24 11:51	27°♍19'44	2.64757 AU	asc. node	1627 Oct 29 16:52	6°♑37'48	
	1622 Jul 28 15:26	0°♎		min. Earth dist.	1627 Nov 13 22:23	1°♑58'09	0.51801 AU
morning rise	1622 Aug 27 18:14	19°♎14'50			1627 Nov 19 04:18	30°♒♓	
	1622 Sep 13 17:10	0°♏		opposition	1627 Nov 21 14:30	29°♒05'04	1°08'50
	1622 Oct 31 09:15	0°♐		greatest brilliancy	1627 Nov 21 01:39	29°♒17'08	-2.0m
	1622 Dec 18 16:24	0°♑		direct	1627 Dec 26 08:18	21°♒28'47	
	1623 Feb 06 14:20	0°♒			1628 Feb 04 18:23	0°♑	
desc. node	1623 Mar 26 23:56	26°♒24'34			1628 Apr 07 11:24	0°♍	
	1623 Apr 03 10:48	0°♒			1628 May 29 22:46	0°♎	
retrograde	1623 Jun 03 03:33	17°♒12'30			1628 Jul 18 10:30	0°♏	
opposition	1623 Jul 04 08:32	11°♒48'07	-5°-20'-15		1628 Sep 03 16:43	0°♐	
greatest brilliancy	1623 Jul 05 20:14	11°♒22'13	-2.7m	evening set	1628 Sep 14 18:21	7°♐14'17	
min. Earth dist.	1623 Jul 10 11:57	10°♒01'57	0.40236 AU	max. Earth dist.	1628 Oct 04 01:48	20°♐04'49	2.57162 AU
direct	1623 Aug 06 07:55	5°♒35'06			1628 Oct 18 17:03	0°♑	
	1623 Oct 13 09:22	0°♓					
	1623 Nov 28 20:02	0°♐		conjunction	1628 Nov 01 06:58	9°♑21'26	0°08'42
	1624 Jan 11 01:47	0°♑		minimum elong	1628 Nov 01 07:18	9°♑22'02	0°08'42
asc. node	1624 Jan 24 17:06	9°♑30'11		behind sun begin	1628 Oct 31 13:47	8°♑51'37	
	1624 Feb 23 08:56	0°♓		behind sun end	1628 Nov 02 00:50	9°♑52'28	
	1624 Apr 07 18:34	0°♑		desc. node	1628 Nov 15 20:20	19°♑32'56	
	1624 May 23 12:16	0°♍			1628 Nov 30 12:37	0°♒	
evening set	1624 Jul 02 09:11	25°♍36'11		morning rise	1628 Dec 21 09:31	15°♒08'53	
	1624 Jul 09 06:42	0°♎			1629 Jan 10 10:35	0°♒	
max. Earth dist.	1624 Aug 16 00:08	24°♎00'06	2.67603 AU		1629 Feb 18 23:00	0°♓	
					1629 Mar 29 18:09	0°♐	
conjunction	1624 Aug 17 23:55	25°♎16'07	1°08'22		1629 May 07 16:41	0°♑	
minimum elong	1624 Aug 18 00:13	25°♎16'36	1°08'22		1629 Jun 16 20:21	0°♓	
	1624 Aug 25 10:18	0°♏			1629 Jul 29 19:03	0°♑	
morning rise	1624 Oct 01 11:52	23°♏41'43		asc. node	1629 Sep 15 15:09	29°♑03'52	
	1624 Oct 11 06:58	0°♐			1629 Sep 17 09:15	0°♍	
	1624 Nov 26 10:06	0°♑		retrograde	1629 Nov 22 15:13	21°♍15'54	
	1625 Jan 10 17:06	0°♒		min. Earth dist.	1629 Dec 28 06:23	13°♍02'12	0.62661 AU
desc. node	1625 Feb 10 22:35	20°♒57'33		opposition	1630 Jan 01 14:16	11°♍18'39	3°52'21
	1625 Feb 24 08:14	0°♒		greatest brilliancy	1629 Dec 31 17:54	11°♍38'59	-1.5m
	1625 Apr 09 19:09	0°♓		direct	1630 Feb 08 23:33	2°♍18'39	
	1625 May 25 17:23	0°♐			1630 May 04 13:19	0°♎	
	1625 Jul 22 06:40	0°♑			1630 Jun 27 20:22	0°♏	
retrograde	1625 Aug 20 15:02	5°♑33'03			1630 Aug 15 15:52	0°♐	
min. Earth dist.	1625 Sep 16 03:14	1°♑04'14	0.39419 AU		1630 Sep 30 00:23	0°♑	
	1625 Sep 19 18:46	30°♒♓		desc. node	1630 Oct 03 18:59	2°♑35'21	
greatest brilliancy	1625 Sep 21 00:26	29°♒37'59	-2.7m	evening set	1630 Oct 27 20:42	19°♑25'43	
opposition	1625 Sep 22 05:06	29°♒16'44	-4°-48'-20		1630 Nov 11 13:48	0°♒	
direct	1625 Oct 22 08:33	23°♒54'39		max. Earth dist.	1630 Nov 11 14:30	0°♒01'18	2.45106 AU
	1625 Nov 23 14:45	0°♑					
asc. node	1625 Dec 11 17:07	7°♑16'54		conjunction	1630 Dec 21 03:47	29°♒24'20	0°-44'-49
	1626 Jan 24 01:45	0°♓		minimum elong	1630 Dec 21 01:40	29°♒20'19	0°44'50
	1626 Mar 15 08:28	0°♑			1630 Dec 21 22:35	0°♒	

	1631 Jan 29 19:43	0°♊		opposition	1636 Apr 17 11:40	27°♊52'54	1°38'02
morning rise	1631 Feb 21 18:57	18°♊00'40		greatest brilliancy	1636 Apr 18 03:17	27°♊38'20	-1.7m
greatest brilliancy	1631 Feb 23 08:23	19°♊14'15	1.2m	min. Earth dist.	1636 Apr 24 12:47	25°♊15'22	0.57727 AU
	1631 Mar 09 00:48	0°♋		desc. node	1636 May 25 15:52	18°♊16'33	
	1631 Apr 16 10:52	0°♌		direct	1636 May 28 00:16	18°♊14'22	
	1631 May 25 23:18	0°♍			1636 Jul 13 19:20	0°♎	
	1631 Jul 06 12:09	0°♎			1636 Sep 05 05:09	0°♏	
asc. node	1631 Aug 03 14:12	19°♎09'38			1636 Oct 18 06:23	0°♐	
	1631 Aug 20 05:13	0°♑			1636 Nov 27 01:02	0°♑	
	1631 Oct 09 20:25	0°♒			1637 Jan 04 19:13	0°♋	
retrograde	1631 Dec 27 12:59	26°♒18'16			1637 Feb 12 21:36	0°♌	
opposition	1632 Feb 05 17:49	16°♒32'57	4°33'31	asc. node	1637 Mar 25 10:44	0°♍07'55	
min. Earth dist.	1632 Feb 05 06:53	16°♒43'52	0.67558 AU		1637 Mar 25 06:23	0°♍	
greatest brilliancy	1632 Feb 05 14:17	16°♒36'29	-1.2m	evening set	1637 May 02 14:52	27°♋19'57	
direct	1632 Mar 17 08:39	6°♒48'11			1637 May 06 10:50	0°♎	
	1632 May 31 16:28	0°♐			1637 Jun 19 14:35	0°♑	
	1632 Jul 24 13:55	0°♑					
desc. node	1632 Aug 20 17:37	17°♑02'24		conjunction	1637 Jun 25 08:31	3°♑48'57	0°49'41
	1632 Sep 09 08:38	0°♒		minimum elong	1637 Jun 25 06:58	3°♑46'22	0°49'41
	1632 Oct 22 05:05	0°♓		max. Earth dist.	1637 Jul 14 18:13	16°♑33'54	2.62175 AU
	1632 Dec 01 10:27	0°♓			1637 Aug 04 11:57	0°♒	
evening set	1632 Dec 22 11:40	16°♓15'00		morning rise	1637 Aug 13 07:42	5°♒39'44	
	1633 Jan 09 01:09	0°♊			1637 Sep 20 16:53	0°♐	
	1633 Feb 16 00:44	0°♋			1637 Nov 08 00:00	0°♑	
					1637 Dec 27 22:51	0°♒	
conjunction	1633 Feb 26 16:11	8°♋23'29	-1°00'-9		1638 Feb 20 16:22	0°♓	
minimum elong	1633 Feb 26 18:31	8°♋28'06	1°00'09	desc. node	1638 Apr 12 14:37	20°♓03'31	
	1633 Mar 26 07:53	0°♌		retrograde	1638 May 05 16:08	23°♓01'34	
max. Earth dist.	1633 Apr 11 23:43	12°♌48'30	2.38671 AU	opposition	1638 Jun 07 17:14	16°♓45'31	-2°-59'-46
	1633 May 04 18:55	0°♍		greatest brilliancy	1638 Jun 08 23:42	16°♓20'50	-2.4m
morning rise	1633 May 07 11:55	2°♍00'49		min. Earth dist.	1638 Jun 15 20:49	14°♓07'53	0.44896 AU
	1633 Jun 15 02:43	0°♎		direct	1638 Jul 13 20:06	9°♓08'10	
asc. node	1633 Jun 20 13:54	3°♎50'52			1638 Sep 13 17:55	0°♓	
	1633 Jul 28 20:45	0°♑			1638 Oct 30 07:44	0°♊	
	1633 Sep 13 16:36	0°♒			1638 Dec 11 02:05	0°♋	
	1633 Nov 04 15:08	0°♐			1639 Jan 21 04:48	0°♌	
retrograde	1634 Jan 30 16:32	29°♐35'36		asc. node	1639 Feb 10 10:23	14°♌34'47	
opposition	1634 Mar 10 23:41	20°♐27'05	3°51'50		1639 Mar 04 03:59	0°♍	
greatest brilliancy	1634 Mar 11 14:03	20°♐13'00	-1.3m		1639 Apr 16 15:26	0°♎	
min. Earth dist.	1634 Mar 14 10:01	19°♐06'29	0.65871 AU		1639 May 31 18:05	0°♏	
direct	1634 Apr 21 11:12	10°♐25'07		evening set	1639 Jun 17 18:06	11°♏04'16	
	1634 Jun 26 13:46	0°♑			1639 Jul 17 03:32	0°♐	
desc. node	1634 Jul 08 17:09	6°♑14'46					
	1634 Aug 18 01:14	0°♒		conjunction	1639 Aug 04 14:50	11°♒48'12	1°08'42
	1634 Oct 01 10:36	0°♓		minimum elong	1639 Aug 04 14:35	11°♒47'48	1°08'42
	1634 Nov 11 02:56	0°♓		max. Earth dist.	1639 Aug 08 00:39	13°♒58'37	2.67129 AU
	1634 Dec 19 20:46	0°♊			1639 Sep 02 04:41	0°♐	
	1635 Jan 26 22:32	0°♋		morning rise	1639 Sep 18 17:01	10°♐30'31	
evening set	1635 Mar 03 15:44	27°♋52'47			1639 Oct 19 06:28	0°♑	
	1635 Mar 06 09:45	0°♌			1639 Dec 05 00:27	0°♒	
	1635 Apr 15 02:57	0°♍		desc. node	1640 Jan 20 12:16	0°♓	
					1640 Feb 28 14:08	25°♓06'39	
conjunction	1635 May 06 15:34	15°♍43'14	0°-1'-11		1640 Mar 07 06:32	0°♓	
minimum elong	1635 May 06 15:40	15°♍43'24	0°01'12		1640 Apr 24 22:07	0°♊	
behind sun begin	1635 May 05 14:21	14°♍57'45			1640 Jun 25 21:28	0°♋	
behind sun end	1635 May 07 16:59	16°♍29'00		retrograde	1640 Jul 22 10:32	4°♋21'26	
asc. node	1635 May 08 11:52	17°♍02'59			1640 Aug 19 00:35	30°♌	
	1635 May 26 16:34	0°♎		min. Earth dist.	1640 Aug 20 09:35	29°♌38'00	0.37347 AU
max. Earth dist.	1635 Jun 15 00:11	13°♎26'32	2.51976 AU	opposition	1640 Aug 21 22:53	29°♌13'03	-6°-42'-11
morning rise	1635 Jul 03 06:45	25°♎53'03		greatest brilliancy	1640 Aug 21 15:43	29°♌17'51	-2.9m
	1635 Jul 09 09:50	0°♏		direct	1640 Sep 20 11:48	24°♌18'32	
	1635 Aug 24 07:50	0°♐			1640 Oct 21 02:28	0°♋	
	1635 Oct 11 14:08	0°♐			1640 Dec 19 18:09	0°♌	
	1635 Dec 02 12:26	0°♑		asc. node	1640 Dec 28 09:27	5°♌12'57	
	1636 Feb 06 08:33	0°♒			1641 Feb 05 22:32	0°♍	
retrograde	1636 Mar 11 08:31	5°♒58'04			1641 Mar 24 19:54	0°♎	
	1636 Apr 11 15:56	30°♒			1641 May 11 00:07	0°♏	

	1641 Jun 27 13:46	0°♏			1646 Apr 24 07:02	0°♑		
evening set	1641 Jul 25 15:32	17°♏42'19			1646 Jun 02 22:48	0°♑		
	1641 Aug 14 01:11	0°♑			1646 Jul 14 18:41	0°♒		
max. Earth dist.	1641 Aug 30 08:49	10°♑24'00	2.66644 AU	asc. node	1646 Aug 20 06:13	24°♒14'54		
					1646 Aug 29 10:48	0°♓		
conjunction	1641 Sep 09 06:20	16°♑44'38	0°59'56		1646 Oct 23 16:32	0°♏		
minimum elong	1641 Sep 09 07:17	16°♑46'11	0°59'56	retrograde	1646 Dec 14 05:02	13°♏20'12		
	1641 Sep 29 18:55	0°♐		min. Earth dist.	1647 Jan 21 11:40	4°♏14'05	0.66420 AU	
morning rise	1641 Oct 23 18:43	15°♐42'01		opposition	1647 Jan 23 11:01	3°♏26'42	4°28'19	
	1641 Nov 14 07:17	0°♑		greatest brilliancy	1647 Jan 23 00:00	3°♏37'44	-1.3m	
	1641 Dec 28 10:06	0°♑			1647 Feb 01 07:49	30°♑♓		
desc. node	1642 Jan 15 12:40	12°♑35'18		direct	1647 Mar 04 08:35	23°♓56'02		
	1642 Feb 09 05:10	0°♑			1647 Apr 07 18:02	0°♏		
	1642 Mar 22 23:13	0°♑			1647 Jun 12 18:56	0°♑		
	1642 May 03 07:03	0°♑			1647 Aug 02 21:44	0°♐		
	1642 Jun 14 16:16	0°♑		desc. node	1647 Sep 07 10:10	22°♐54'51		
	1642 Aug 01 20:11	0°♑			1647 Sep 17 23:01	0°♑		
retrograde	1642 Sep 25 17:23	17°♑17'57			1647 Oct 30 15:22	0°♑		
min. Earth dist.	1642 Oct 24 00:38	11°♑48'14	0.46581 AU	evening set	1647 Nov 29 03:00	21°♑50'15		
opposition	1642 Nov 01 05:30	8°♑54'18	0°-47'-17		1647 Dec 09 21:10	0°♑		
greatest brilliancy	1642 Oct 31 20:39	9°♑02'07	-2.3m	max. Earth dist.	1648 Jan 02 22:58	18°♑34'27	2.37841 AU	
asc. node	1642 Nov 15 08:16	4°♑30'04			1648 Jan 17 13:33	0°♑		
direct	1642 Dec 04 02:55	2°♑06'19						
	1643 Feb 23 23:15	0°♒		conjunction	1648 Jan 29 18:42	9°♑36'57	-1°-4'-28	
	1643 Apr 18 14:38	0°♓		minimum elong	1648 Jan 29 18:03	9°♑35'40	1°04'28	
	1643 Jun 07 21:59	0°♏			1648 Feb 24 14:16	0°♑		
	1643 Jul 26 13:57	0°♑			1648 Apr 02 21:18	0°♑		
evening set	1643 Aug 31 18:53	23°♑00'28		morning rise	1648 Apr 09 01:50	4°♑46'57		
	1643 Sep 11 13:46	0°♐			1648 May 12 07:24	0°♑		
max. Earth dist.	1643 Sep 24 01:21	8°♐10'45	2.60803 AU		1648 Jun 22 14:52	0°♒		
				asc. node	1648 Jul 07 04:54	10°♒11'10		
conjunction	1643 Oct 17 02:33	23°♐32'42	0°27'04		1648 Aug 05 13:13	0°♓		
minimum elong	1643 Oct 17 03:28	23°♐34'14	0°27'02		1648 Sep 22 05:06	0°♏		
	1643 Oct 26 15:09	0°♑			1648 Nov 16 23:05	0°♑		
morning rise	1643 Dec 03 14:41	26°♑23'06		retrograde	1649 Jan 16 17:10	16°♑45'46		
desc. node	1643 Dec 03 11:31	26°♑17'30		opposition	1649 Feb 25 12:04	7°♑20'17	4°17'19	
	1643 Dec 08 16:48	0°♑		greatest brilliancy	1649 Feb 25 20:11	7°♑12'16	-1.2m	
	1644 Jan 18 23:40	0°♑		min. Earth dist.	1649 Feb 27 10:11	6°♑34'42	0.67329 AU	
	1644 Feb 27 22:03	0°♑			1649 Mar 18 11:55	30°♑♏		
	1644 Apr 07 02:50	0°♑		direct	1649 Apr 07 19:45	27°♏21'36		
	1644 May 16 11:09	0°♑			1649 Apr 29 12:55	0°♑		
	1644 Jun 26 05:23	0°♑			1649 Jul 08 19:24	0°♐		
	1644 Aug 09 17:07	0°♒		desc. node	1649 Jul 25 08:26	9°♐32'38		
asc. node	1644 Oct 02 07:43	28°♒13'54			1649 Aug 27 00:08	0°♑		
	1644 Oct 07 02:28	0°♓			1649 Oct 09 13:59	0°♑		
retrograde	1644 Nov 08 01:04	6°♓09'30			1649 Nov 19 00:08	0°♑		
	1644 Dec 08 01:44	30°♑♒			1649 Dec 27 15:39	0°♑		
min. Earth dist.	1644 Dec 11 17:49	28°♒35'54	0.59029 AU	evening set	1650 Feb 03 11:07	29°♑51'18		
opposition	1644 Dec 17 12:39	26°♒19'10	3°07'49		1650 Feb 03 15:32	0°♑		
greatest brilliancy	1644 Dec 16 13:51	26°♒41'40	-1.6m	greatest brilliancy	1650 Feb 14 18:26	8°♑45'38	1.2m	
direct	1645 Jan 23 16:14	17°♒45'58			1650 Mar 13 23:56	0°♑		
	1645 Mar 15 10:00	0°♓						
	1645 May 15 04:11	0°♏		conjunction	1650 Apr 11 20:41	22°♑00'38	0°-27'-25	
	1645 Jul 05 21:43	0°♑		minimum elong	1650 Apr 11 22:52	22°♑04'44	0°27'25	
	1645 Aug 22 22:44	0°♐			1650 Apr 22 13:22	0°♑		
	1645 Oct 07 02:32	0°♑		asc. node	1650 May 25 04:52	23°♑46'47		
evening set	1645 Oct 09 23:56	1°♑58'58		max. Earth dist.	1650 May 29 13:48	26°♑53'36	2.46772 AU	
desc. node	1645 Oct 20 11:20	9°♑13'49			1650 Jun 02 23:04	0°♒		
max. Earth dist.	1645 Oct 24 21:51	12°♑19'55	2.50163 AU	morning rise	1650 Jun 13 14:29	7°♒27'58		
	1645 Nov 18 17:27	0°♑			1650 Jul 16 14:22	0°♓		
					1650 Aug 31 16:36	0°♏		
conjunction	1645 Nov 29 21:24	8°♑07'41	0°-24'-19		1650 Oct 19 19:55	0°♑		
minimum elong	1645 Nov 29 20:13	8°♑05'30	0°24'18		1650 Dec 14 04:19	0°♐		
	1645 Dec 29 06:22	0°♑		retrograde	1651 Feb 23 11:10	21°♐17'22		
morning rise	1646 Jan 25 14:36	20°♑54'14		opposition	1651 Apr 02 15:02	12°♐43'21	2°43'12	
	1646 Feb 06 08:25	0°♑		greatest brilliancy	1651 Apr 03 10:03	12°♐25'10	-1.5m	
	1646 Mar 16 17:45	0°♑		min. Earth dist.	1651 Apr 08 08:20	10°♐32'12	0.61634 AU	

direct	1651 May 13 19:21	2°♄48'31		evening set	1656 Jul 10 23:31	4°♂03'37	
desc. node	1651 Jun 12 07:14	7°♄44'46			1656 Aug 20 19:52	0°♊	
	1651 Jul 31 04:51	0°♊		max. Earth dist.	1656 Aug 21 05:26	0°♊15'14	2.67494 AU
	1651 Sep 16 18:23	0°♊					
	1651 Oct 28 11:04	0°♊		conjunction	1656 Aug 26 02:42	3°♊21'59	1°06'21
	1651 Dec 06 16:03	0°♊		minimum elong	1656 Aug 26 03:17	3°♊22'55	1°06'22
	1652 Jan 14 01:24	0°♊			1656 Oct 06 15:10	0°♄	
	1652 Feb 21 19:50	0°♊		morning rise	1656 Oct 09 11:47	1°♄50'59	
	1652 Apr 01 20:44	0°♊			1656 Nov 21 12:20	0°♊	
evening set	1652 Apr 10 23:28	6°♊39'12			1657 Jan 05 07:50	0°♊	
asc. node	1652 Apr 11 03:48	6°♊47'04		desc. node	1657 Feb 01 04:48	18°♊19'20	
	1652 May 13 17:38	0°♊			1657 Feb 18 03:51	0°♊	
					1657 Apr 02 08:41	0°♊	
conjunction	1652 Jun 07 07:34	16°♊57'45	0°33'42		1657 May 15 20:43	0°♊	
minimum elong	1652 Jun 07 06:01	16°♊55'07	0°33'41		1657 Jul 02 01:33	0°♊	
	1652 Jun 26 15:32	0°♊		retrograde	1657 Sep 03 19:48	22°♊11'57	
max. Earth dist.	1652 Jul 03 22:41	4°♊51'34	2.58753 AU	min. Earth dist.	1657 Sep 30 13:55	17°♊27'02	0.41650 AU
morning rise	1652 Jul 28 23:38	21°♊17'40		opposition	1657 Oct 07 23:38	15°♊05'26	-3°-17'-34
	1652 Aug 11 10:55	0°♊		greatest brilliancy	1657 Oct 06 20:26	15°♊27'16	-2.6m
	1652 Sep 27 21:49	0°♊		direct	1657 Nov 08 01:22	9°♊13'09	
	1652 Nov 16 03:11	0°♄		asc. node	1657 Dec 02 00:46	12°♊41'50	
	1653 Jan 07 20:13	0°♊			1658 Jan 13 12:33	0°♊	
	1653 Mar 19 23:17	0°♊			1658 Mar 08 13:47	0°♊	
retrograde	1653 Apr 11 11:58	2°♊48'12			1658 Apr 27 13:17	0°♊	
desc. node	1653 Apr 29 06:25	0°♊49'07			1658 Jun 15 11:25	0°♊	
	1653 May 02 16:02	30°♊			1658 Aug 02 13:32	0°♊	
opposition	1653 May 16 09:00	25°♊43'05	0°-51'-8	evening set	1658 Aug 17 06:17	9°♊18'49	
greatest brilliancy	1653 May 16 19:06	25°♊34'18	-2.1m	max. Earth dist.	1658 Sep 14 02:35	27°♊12'27	2.63725 AU
min. Earth dist.	1653 May 24 19:01	22°♊47'16	0.50149 AU		1658 Sep 18 09:41	0°♄	
direct	1653 Jun 23 19:45	17°♊00'45					
	1653 Aug 10 15:09	0°♊		conjunction	1658 Oct 01 21:59	8°♄51'00	0°42'28
	1653 Sep 30 05:44	0°♊		minimum elong	1658 Oct 01 23:08	8°♄52'53	0°42'28
	1653 Nov 11 06:41	0°♊			1658 Nov 02 14:12	0°♊	
	1653 Dec 21 06:11	0°♊		morning rise	1658 Nov 16 16:57	9°♊37'15	
	1654 Jan 30 06:13	0°♊			1658 Dec 16 00:00	0°♊	
asc. node	1654 Feb 27 02:01	20°♊24'53		desc. node	1658 Dec 20 03:56	2°♊56'33	
	1654 Mar 12 09:31	0°♊			1659 Jan 26 18:10	0°♊	
	1654 Apr 24 05:36	0°♊			1659 Mar 08 05:22	0°♊	
evening set	1654 Jun 01 00:39	25°♊28'06			1659 Apr 16 23:25	0°♊	
	1654 Jun 07 21:06	0°♊			1659 May 26 23:11	0°♊	
					1659 Jul 07 20:49	0°♊	
conjunction	1654 Jul 20 16:07	27°♊51'29	1°04'53		1659 Aug 25 01:08	0°♊	
minimum elong	1654 Jul 20 15:16	27°♊50'08	1°04'53	asc. node	1659 Oct 19 22:42	19°♊15'50	
	1654 Jul 24 00:03	0°♊		retrograde	1659 Oct 24 07:19	19°♊23'53	
max. Earth dist.	1654 Jul 29 22:59	3°♊49'20	2.65833 AU	min. Earth dist.	1659 Nov 24 21:39	12°♊35'47	0.54575 AU
morning rise	1654 Sep 04 20:13	27°♊20'27		opposition	1659 Dec 01 23:57	9°♊52'11	2°00'47
	1654 Sep 09 00:44	0°♊		greatest brilliancy	1659 Dec 01 04:33	10°♊10'51	-1.9m
	1654 Oct 26 10:24	0°♄		direct	1660 Jan 06 16:33	1°♊52'58	
	1654 Dec 13 01:18	0°♊			1660 Mar 30 19:49	0°♊	
	1655 Jan 30 09:22	0°♊			1660 May 24 07:18	0°♊	
desc. node	1655 Mar 17 05:12	27°♊09'10			1660 Jul 13 11:27	0°♊	
	1655 Mar 22 06:43	0°♊			1660 Aug 30 00:05	0°♄	
	1655 May 27 21:54	0°♊		evening set	1660 Sep 23 15:13	16°♄11'34	
retrograde	1655 Jun 21 02:33	3°♊23'40		max. Earth dist.	1660 Oct 11 01:45	27°♄56'52	2.54855 AU
	1655 Jul 15 02:45	30°♊			1660 Oct 14 01:55	0°♊	
opposition	1655 Jul 21 09:52	28°♊19'58	-6°-23'-7	desc. node	1660 Nov 06 02:50	15°♊58'11	
greatest brilliancy	1655 Jul 22 12:49	28°♊01'35	-2.8m				
min. Earth dist.	1655 Jul 25 08:52	27°♊15'16	0.38437 AU	conjunction	1660 Nov 11 02:32	19°♊29'09	0°-3'-2
direct	1655 Aug 21 18:12	22°♊49'27		minimum elong	1660 Nov 11 02:22	19°♊28'51	0°03'04
	1655 Sep 24 18:00	0°♊		behind sun begin	1660 Nov 10 05:34	18°♊52'08	
	1655 Nov 19 10:34	0°♊		behind sun end	1660 Nov 11 23:10	20°♊05'37	
	1656 Jan 03 23:27	0°♊			1660 Nov 25 20:23	0°♊	
asc. node	1656 Jan 15 01:26	7°♊29'10		morning rise	1661 Jan 02 03:34	27°♊22'52	
	1656 Feb 17 09:25	0°♊			1661 Jan 05 15:27	0°♊	
	1656 Apr 02 10:41	0°♊			1661 Feb 14 00:16	0°♊	
	1656 May 18 14:04	0°♊			1661 Mar 24 15:39	0°♊	
	1656 Jul 04 13:59	0°♊			1661 May 02 09:51	0°♊	

	1661 Jun 11 07:19	0°♄			1666 Aug 11 17:00	0°♍		
	1661 Jul 23 15:52	0°♊			1666 Sep 25 23:23	0°♌		
asc. node	1661 Sep 05 22:22	28°♊08'08			1666 Nov 05 23:14	0°♍		
	1661 Sep 09 03:32	0°♌			1666 Dec 14 20:34	0°♎		
retrograde	1661 Nov 30 16:02	29°♌51'27			1667 Jan 22 00:29	0°♏		
min. Earth dist.	1662 Jan 06 07:05	21°♌17'35	0.64267 AU		1667 Mar 01 13:17	0°♐		
opposition	1662 Jan 09 18:45	19°♌53'54	4°10'09	evening set	1667 Mar 18 14:42	13°♐00'37		
greatest brilliancy	1662 Jan 09 01:08	20°♌11'32	-1.4m		1667 Apr 10 08:03	0°♑		
direct	1662 Feb 17 18:16	10°♌41'30		asc. node	1667 Apr 28 19:36	13°♑30'10		
	1662 Apr 26 05:54	0°♎						
	1662 Jun 22 03:16	0°♏		conjunction	1667 May 19 05:01	28°♑03'46	0°12'47	
	1662 Aug 10 15:53	0°♐		minimum elong	1667 May 19 04:13	28°♑02'21	0°12'48	
desc. node	1662 Sep 24 01:19	29°♐10'49		behind sun begin	1667 May 18 13:39	27°♑36'40		
	1662 Sep 25 06:12	0°♑		behind sun end	1667 May 19 18:46	28°♑28'00		
	1662 Nov 06 21:03	0°♒			1667 May 21 23:01	0°♊		
evening set	1662 Nov 07 20:35	0°♒42'44		max. Earth dist.	1667 Jun 22 20:28	22°♊01'20	2.54577 AU	
max. Earth dist.	1662 Nov 24 21:53	13°♒14'17	2.42264 AU		1667 Jul 04 16:36	0°♋		
	1662 Dec 17 04:58	0°♌		morning rise	1667 Jul 13 10:43	5°♋50'11		
					1667 Aug 19 12:15	0°♎		
conjunction	1663 Jan 03 12:43	13°♌16'48	0°-54'-37		1667 Oct 06 09:15	0°♏		
minimum elong	1663 Jan 03 10:31	13°♌12'34	0°54'38		1667 Nov 26 00:54	0°♐		
	1663 Jan 25 00:34	0°♎			1668 Jan 23 05:39	0°♑		
	1663 Mar 04 04:03	0°♏		retrograde	1668 Mar 21 22:08	15°♑27'07		
morning rise	1663 Mar 10 13:02	5°♏01'00		opposition	1668 Apr 27 07:57	7°♑41'15	0°50'31	
	1663 Apr 11 12:36	0°♐		greatest brilliancy	1668 Apr 27 17:28	7°♑32'33	-1.8m	
	1663 May 20 23:22	0°♑		min. Earth dist.	1668 May 05 00:11	4°♑52'51	0.55177 AU	
	1663 Jul 01 08:43	0°♊		desc. node	1668 May 15 21:44	1°♑20'52		
asc. node	1663 Jul 24 22:16	16°♊15'27			1668 May 21 09:25	30°♒♌		
	1663 Aug 14 15:41	0°♋		direct	1668 Jun 06 06:44	28°♌17'40		
	1663 Oct 02 18:18	0°♎			1668 Jun 22 14:46	0°♍		
	1663 Dec 08 03:30	0°♏			1668 Aug 28 08:47	0°♌		
retrograde	1664 Jan 04 05:00	4°♏05'10			1668 Oct 11 22:33	0°♍		
	1664 Jan 29 06:42	30°♒♎			1668 Nov 21 07:01	0°♎		
opposition	1664 Feb 13 07:22	24°♎26'04	4°30'55		1668 Dec 30 09:15	0°♏		
greatest brilliancy	1664 Feb 13 08:08	24°♎25'19	-1.2m		1669 Feb 07 17:31	0°♐		
min. Earth dist.	1664 Feb 13 17:01	24°♎16'28	0.67755 AU	asc. node	1669 Mar 15 18:44	26°♐42'56		
direct	1664 Mar 25 05:31	14°♎35'09			1669 Mar 20 07:18	0°♑		
	1664 May 22 18:41	0°♏			1669 May 01 15:53	0°♊		
	1664 Jul 18 17:21	0°♐		evening set	1669 May 13 19:24	8°♊21'30		
desc. node	1664 Aug 11 00:03	14°♐15'22			1669 Jun 14 22:28	0°♋		
	1664 Sep 04 05:32	0°♑						
	1664 Oct 17 08:03	0°♒		conjunction	1669 Jul 04 21:01	13°♋08'27	0°56'36	
	1664 Nov 26 15:07	0°♌		minimum elong	1669 Jul 04 19:40	13°♋06'14	0°56'36	
	1665 Jan 04 05:58	0°♎		max. Earth dist.	1669 Jul 20 13:21	23°♋20'38	2.63708 AU	
evening set	1665 Jan 06 10:51	1°♎44'02			1669 Jul 30 20:44	0°♎		
	1665 Feb 11 05:17	0°♏		morning rise	1669 Aug 21 16:05	13°♎57'46		
					1669 Sep 15 23:09	0°♏		
conjunction	1665 Mar 15 02:59	25°♏02'43	0°-50'-59		1669 Nov 02 20:47	0°♐		
minimum elong	1665 Mar 15 06:10	25°♏08'55	0°50'59		1669 Dec 21 18:44	0°♑		
	1665 Mar 21 12:09	0°♐			1670 Feb 11 07:06	0°♒		
	1665 Apr 29 23:10	0°♑		desc. node	1670 Apr 02 21:35	25°♒03'45		
max. Earth dist.	1665 May 05 19:08	4°♑19'40	2.41381 AU		1670 Apr 16 00:53	0°♌		
morning rise	1665 May 21 22:13	16°♑08'31		retrograde	1670 May 21 02:30	6°♌32'55		
asc. node	1665 Jun 10 20:29	0°♊24'37		opposition	1670 Jun 22 03:24	0°♌46'14	-4°-20'-28	
	1665 Jun 10 06:34	0°♊		greatest brilliancy	1670 Jun 23 15:57	0°♌18'17	-2.5m	
	1665 Jul 23 22:02	0°♋			1670 Jun 24 15:51	30°♒♌		
	1665 Sep 08 08:46	0°♎		min. Earth dist.	1670 Jun 29 11:44	28°♒32'29	0.42157 AU	
	1665 Oct 28 22:18	0°♏		direct	1670 Jul 26 13:29	23°♒54'43		
	1665 Dec 31 05:43	0°♐			1670 Aug 26 10:48	0°♑		
retrograde	1666 Feb 08 01:28	7°♐36'55			1670 Oct 21 03:45	0°♒		
	1666 Mar 15 12:48	30°♒♏			1670 Dec 03 22:03	0°♑		
opposition	1666 Mar 19 00:16	28°♏39'35	3°30'41		1671 Jan 15 00:30	0°♐		
greatest brilliancy	1666 Mar 19 17:11	28°♏23'08	-1.3m	asc. node	1671 Jan 31 16:38	11°♐49'44		
min. Earth dist.	1666 Mar 23 06:48	26°♏59'57	0.64628 AU		1671 Feb 26 14:45	0°♑		
direct	1666 Apr 29 11:12	18°♏38'12			1671 Apr 11 12:45	0°♊		
	1666 Jun 16 02:26	0°♐			1671 May 26 22:27	0°♋		
desc. node	1666 Jun 28 22:42	5°♐45'28		evening set	1671 Jun 26 19:36	19°♋57'17		

	1671 Jul 12 12:02	0°♈				1676 Jun 20 04:30	0°♄		
						1676 Aug 02 13:47	0°♊		
conjunction	1671 Aug 12 21:47	20°♈00'59	1°08'59	asc. node		1676 Sep 22 14:43	29°♊40'46		
minimum elong	1671 Aug 12 21:52	20°♈01'07	1°08'59			1676 Sep 23 06:32	0°♄		
max. Earth dist.	1671 Aug 13 06:15	20°♈14'27	2.67499 AU	retrograde		1676 Nov 16 13:06	15°♄25'34		
	1671 Aug 28 14:18	0°♊		min. Earth dist.		1676 Dec 21 08:02	7°♄28'44	0.61152 AU	
morning rise	1671 Sep 26 14:27	18°♊30'04		greatest brilliancy		1676 Dec 25 09:14	5°♄52'14	-1.5m	
	1671 Oct 14 13:07	0°♊		opposition		1676 Dec 26 07:15	5°♄30'20	3°36'14	
	1671 Nov 29 22:44	0°♋				1677 Jan 10 16:36	30°♋♊		
	1672 Jan 14 17:47	0°♌		direct		1677 Feb 02 03:41	26°♊41'25		
desc. node	1672 Feb 18 20:32	23°♌10'35				1677 Feb 26 14:10	0°♄		
	1672 Feb 29 04:28	0°♍				1677 May 08 10:21	0°♈		
	1672 Apr 15 01:24	0°♎				1677 Jun 30 13:32	0°♊		
	1672 Jun 03 07:22	0°♏				1677 Aug 18 01:59	0°♊		
retrograde	1672 Aug 08 12:37	22°♏35'24				1677 Oct 02 09:48	0°♋		
min. Earth dist.	1672 Sep 04 14:41	18°♏08'23	0.38121 AU	desc. node		1677 Oct 10 17:08	5°♋42'26		
opposition	1672 Sep 08 22:58	16°♏55'46	-5°-49'-42	evening set		1677 Oct 19 22:44	12°♋07'44		
greatest brilliancy	1672 Sep 08 00:25	17°♏11'31	-2.8m	max. Earth dist.		1677 Nov 03 06:55	22°♋15'59	2.47407 AU	
direct	1672 Oct 08 12:57	11°♏52'23				1677 Nov 14 01:16	0°♌		
	1672 Dec 07 08:55	0°♍							
asc. node	1672 Dec 18 16:11	5°♍53'04		conjunction		1677 Dec 11 13:50	20°♌14'59	0°-36'-22	
	1673 Jan 29 07:48	0°♎		minimum elong		1677 Dec 11 12:04	20°♌11'40	0°36'21	
	1673 Mar 18 19:56	0°♏				1677 Dec 24 12:50	0°♍		
	1673 May 05 18:34	0°♐				1678 Feb 01 12:38	0°♎		
	1673 Jun 22 17:57	0°♑		morning rise		1678 Feb 09 10:33	6°♎10'31		
evening set	1673 Aug 02 22:20	25°♑53'25				1678 Mar 11 19:39	0°♏		
	1673 Aug 09 10:06	0°♊		greatest brilliancy		1678 Apr 16 12:11	27°♏51'47	1.2m	
max. Earth dist.	1673 Sep 04 17:22	16°♊46'41	2.65833 AU			1678 Apr 19 06:29	0°♍		
						1678 May 28 19:06	0°♎		
conjunction	1673 Sep 17 10:13	24°♊57'59	0°54'31			1678 Jul 09 09:02	0°♏		
minimum elong	1673 Sep 17 11:19	24°♊59'45	0°54'31	asc. node		1678 Aug 10 13:36	21°♏47'00		
	1673 Sep 25 04:30	0°♊				1678 Aug 23 07:56	0°♐		
morning rise	1673 Nov 01 05:25	24°♊24'01				1678 Oct 14 05:35	0°♑		
	1673 Nov 09 13:57	0°♋		retrograde		1678 Dec 21 21:34	21°♑17'53		
	1673 Dec 23 10:18	0°♌		min. Earth dist.		1679 Jan 30 00:28	11°♑55'20	0.67173 AU	
desc. node	1674 Jan 05 19:05	9°♌21'25		opposition		1679 Jan 31 03:16	11°♑28'32	4°32'53	
	1674 Feb 03 19:35	0°♍		greatest brilliancy		1679 Jan 30 20:23	11°♑35'25	-1.2m	
	1674 Mar 17 00:53	0°♎		direct		1679 Mar 12 10:46	1°♑49'27		
	1674 Apr 26 15:58	0°♏				1679 Jun 05 19:37	0°♊		
	1674 Jun 06 20:31	0°♍				1679 Jul 28 11:14	0°♊		
	1674 Jul 21 09:19	0°♎		desc. node		1679 Aug 28 15:30	19°♊47'38		
	1674 Oct 03 09:26	0°♏				1679 Sep 12 23:39	0°♋		
retrograde	1674 Oct 06 17:43	0°♏04'52				1679 Oct 25 19:45	0°♌		
	1674 Oct 10 01:31	30°♏♌				1679 Dec 05 02:19	0°♍		
min. Earth dist.	1674 Nov 05 03:28	24°♏07'23	0.49480 AU	evening set		1679 Dec 12 12:16	5°♍40'46		
asc. node	1674 Nov 05 16:13	23°♏55'57				1680 Jan 12 18:20	0°♎		
opposition	1674 Nov 13 04:17	21°♏10'34	0°23'47						
greatest brilliancy	1674 Nov 12 23:19	21°♏15'07	-2.2m	conjunction		1680 Feb 14 20:50	26°♎07'34	-1°-3'-58	
direct	1674 Dec 17 03:15	13°♏54'43		minimum elong		1680 Feb 14 21:55	26°♎09'41	1°03'59	
	1675 Feb 13 12:32	0°♏				1680 Feb 19 18:34	0°♏		
	1675 Apr 12 04:11	0°♐		max. Earth dist.		1680 Mar 04 00:27	10°♏26'34	2.37192 AU	
	1675 Jun 02 14:54	0°♑				1680 Mar 29 01:09	0°♍		
	1675 Jul 21 18:13	0°♊		morning rise		1680 Apr 25 12:09	21°♍01'56		
	1675 Sep 06 22:28	0°♊				1680 May 07 10:43	0°♎		
evening set	1675 Sep 09 06:46	1°♊31'35				1680 Jun 17 16:56	0°♏		
max. Earth dist.	1675 Sep 30 07:10	15°♊22'10	2.58886 AU	asc. node		1680 Jun 27 13:26	6°♏55'35		
	1675 Oct 22 00:20	0°♋				1680 Jul 31 10:41	0°♐		
						1680 Sep 16 11:52	0°♑		
conjunction	1675 Oct 26 04:20	2°♋50'50	0°16'46			1680 Nov 08 13:31	0°♊		
minimum elong	1675 Oct 26 04:58	2°♋51'55	0°16'45	retrograde		1681 Jan 24 15:25	24°♊32'44		
desc. node	1675 Nov 23 18:19	22°♋44'09		opposition		1681 Mar 05 04:34	15°♊16'14	4°03'46	
	1675 Dec 03 23:39	0°♌		greatest brilliancy		1681 Mar 05 16:22	15°♊04'37	-1.3m	
morning rise	1675 Dec 13 23:43	7°♌11'10		min. Earth dist.		1681 Mar 07 23:09	14°♊10'43	0.66650 AU	
	1676 Jan 14 02:16	0°♍		direct		1681 Apr 15 15:09	5°♊14'54		
	1676 Feb 22 19:24	0°♎				1681 Jul 01 08:53	0°♊		
	1676 Apr 01 18:43	0°♏		desc. node		1681 Jul 15 15:07	7°♊45'19		
	1676 May 10 20:35	0°♍				1681 Aug 21 07:53	0°♋		

	1681 Oct 04 09:44	0°♄		conjunction	1686 Jul 29 07:52	6°♏22'52	1°07'37
	1681 Nov 14 00:08	0°♅		minimum elong	1686 Jul 29 07:21	6°♏22'03	1°07'37
greatest brilliancy	1681 Nov 28 02:53	10°♅49'16	1.2m	max. Earth dist.	1686 Aug 04 09:11	10°♏15'05	2.66655 AU
	1681 Dec 22 17:15	0°♆			1686 Sep 04 09:22	0°♐	
evening set	1682 Jan 29 18:05	0°♇		morning rise	1686 Sep 12 19:55	5°♐21'47	
	1682 Feb 19 13:07	16°♇19'54			1686 Oct 21 14:17	0°♑	
	1682 Mar 09 03:23	0°♈			1686 Dec 07 16:55	0°♒	
	1682 Apr 17 17:52	0°♉			1687 Jan 23 21:49	0°♓	
				desc. node	1687 Mar 07 11:56	26°♓35'09	
conjunction	1682 Apr 26 07:31	6°♉19'26	0°-12'-17		1687 Mar 13 02:02	0°♅	
minimum elong	1682 Apr 26 08:28	6°♉21'09	0°12'18		1687 May 04 12:19	0°♆	
behind sun begin	1682 Apr 25 15:23	5°♉49'48		retrograde	1687 Jul 09 09:17	20°♆54'27	
behind sun end	1682 Apr 27 01:32	6°♉52'29		opposition	1687 Aug 08 12:59	15°♆56'29	-6°-51'-55
asc. node	1682 May 15 11:18	20°♉14'09		greatest brilliancy	1687 Aug 08 22:12	15°♆50'22	-2.9m
	1682 May 29 04:33	0°♊		min. Earth dist.	1687 Aug 09 12:41	15°♆40'44	0.37434 AU
max. Earth dist.	1682 Jun 08 09:36	7°♊09'50	2.49726 AU	direct	1687 Sep 07 15:25	10°♆54'12	
morning rise	1682 Jun 25 02:47	18°♊42'02			1687 Nov 06 15:20	0°♋	
	1682 Jul 11 19:26	0°♌			1687 Dec 26 20:51	0°♈	
	1682 Aug 26 17:41	0°♍		asc. node	1688 Jan 05 09:00	6°♈06'18	
	1682 Oct 14 06:27	0°♎			1688 Feb 10 23:53	0°♉	
	1682 Dec 06 06:52	0°♏			1688 Mar 27 22:29	0°♊	
retrograde	1683 Mar 04 20:43	29°♏57'45			1688 May 13 13:52	0°♌	
opposition	1683 Apr 11 11:41	21°♏38'55	2°07'40		1688 Jun 29 20:38	0°♍	
greatest brilliancy	1683 Apr 12 05:31	21°♏22'05	-1.6m	evening set	1688 Jul 19 10:35	12°♏22'57	
min. Earth dist.	1683 Apr 17 23:12	19°♏12'09	0.59591 AU		1688 Aug 16 05:28	0°♎	
direct	1683 May 22 08:42	11°♏51'22		max. Earth dist.	1688 Aug 26 12:48	6°♎33'50	2.67131 AU
desc. node	1683 Jun 02 14:10	12°♏39'11					
	1683 Jul 22 02:05	0°♐		conjunction	1688 Sep 03 05:32	11°♐28'51	1°03'02
	1683 Sep 10 09:14	0°♑		minimum elong	1688 Sep 03 06:21	11°♐30'09	1°03'03
	1683 Oct 22 19:33	0°♒			1688 Oct 02 00:07	0°♑	
	1683 Dec 01 07:51	0°♓		morning rise	1688 Oct 17 14:58	10°♑09'44	
	1684 Jan 08 21:35	0°♔			1688 Nov 16 16:56	0°♒	
	1684 Feb 16 19:23	0°♕			1688 Dec 31 03:21	0°♓	
	1684 Mar 27 23:15	0°♖		desc. node	1689 Jan 22 10:54	15°♓23'09	
asc. node	1684 Apr 01 09:58	3°♖14'38			1689 Feb 12 09:14	0°♅	
evening set	1684 Apr 23 14:27	19°♖11'40			1689 Mar 26 17:02	0°♆	
	1684 May 08 22:59	0°♗			1689 May 07 19:27	0°♇	
					1689 Jun 20 13:45	0°♈	
conjunction	1684 Jun 17 20:05	27°♗15'10	0°43'35		1689 Aug 13 23:00	0°♉	
minimum elong	1684 Jun 17 18:28	27°♗12'28	0°43'33	retrograde	1689 Sep 16 15:41	7°♗21'41	
	1684 Jun 21 22:42	0°♌		min. Earth dist.	1689 Oct 14 03:10	2°♗14'15	0.44271 AU
max. Earth dist.	1684 Jul 10 08:02	12°♌10'22	2.60754 AU		1689 Oct 20 17:42	30°♗♒	
morning rise	1684 Aug 06 21:28	0°♏05'22		greatest brilliancy	1689 Oct 21 10:59	29°♗45'15	-2.5m
	1684 Aug 06 18:08	0°♏		opposition	1689 Oct 22 05:23	29°♗29'36	-1°-48'-28
	1684 Sep 23 00:37	0°♐		asc. node	1689 Nov 22 07:37	23°♗06'33	
	1684 Nov 10 15:40	0°♑		direct	1689 Nov 23 06:13	23°♗06'12	
	1684 Dec 31 13:40	0°♒			1689 Dec 28 10:27	0°♓	
	1685 Feb 28 01:38	0°♓			1690 Feb 28 23:53	0°♔	
desc. node	1685 Apr 19 12:36	14°♓06'58			1690 Apr 21 18:37	0°♕	
retrograde	1685 Apr 24 15:35	14°♓16'30			1690 Jun 10 10:19	0°♖	
opposition	1685 May 28 12:47	7°♓37'26	-2°-1'-30		1690 Jul 28 20:18	0°♗	
greatest brilliancy	1685 May 29 11:18	7°♓18'29	-2.2m	evening set	1690 Aug 25 13:29	17°♗34'51	
min. Earth dist.	1685 Jun 05 22:51	4°♓48'04	0.47240 AU		1690 Sep 13 19:02	0°♘	
	1685 Jun 26 01:35	30°♘♒		max. Earth dist.	1690 Sep 19 21:11	3°♘58'24	2.62199 AU
direct	1685 Jul 04 18:47	29°♘27'48					
	1685 Jul 13 14:07	0°♙		conjunction	1690 Oct 10 12:23	17°♘36'06	0°33'53
	1685 Sep 21 06:52	0°♚		minimum elong	1690 Oct 10 13:26	17°♘37'51	0°33'53
	1685 Nov 04 07:30	0°♛			1690 Oct 28 22:44	0°♙	
	1685 Dec 15 03:14	0°♜		morning rise	1690 Nov 26 03:40	19°♙25'01	
	1686 Jan 24 15:49	0°♝		desc. node	1690 Dec 10 09:27	29°♙25'47	
asc. node	1686 Feb 17 09:58	17°♝17'34			1690 Dec 11 04:46	0°♙	
	1686 Mar 07 04:03	0°♞			1691 Jan 21 17:22	0°♚	
	1686 Apr 19 07:00	0°♟			1691 Mar 02 21:38	0°♛	
	1686 Jun 03 03:12	0°♠			1691 Apr 11 08:06	0°♜	
evening set	1686 Jun 10 17:56	4°♠59'34			1691 May 20 21:58	0°♝	
	1686 Jul 19 08:53	0°♑			1691 Jul 01 00:34	0°♞	
					1691 Aug 15 13:00	0°♟	

asc. node	1691 Oct 10 07:03	26°II11'37			1696 Aug 29 22:18	0°ML	
retrograde	1691 Nov 02 12:02	29°II38'41			1696 Oct 12 08:33	0°J	
min. Earth dist.	1691 Dec 05 06:26	22°II24'34	0.57124 AU		1696 Nov 21 18:28	0°Z	
opposition	1691 Dec 11 15:35	19°II55'04	2°42'52		1696 Dec 30 10:08	0°≈	
greatest brilliancy	1691 Dec 10 17:11	20°II16'59	-1.7m	evening set	1697 Jan 22 01:18	17°≈51'48	
direct	1692 Jan 17 03:59	11°II36'01			1697 Feb 06 09:41	0°H	
	1692 Mar 21 20:04	0°S			1697 Mar 16 16:45	0°Y	
	1692 May 18 09:03	0°Q					
	1692 Jul 08 10:04	0°P		conjunction	1697 Mar 31 01:51	11°Y03'59	0°-38'-21
	1692 Aug 25 06:29	0°A		minimum elong	1697 Mar 31 04:47	11°Y09'34	0°38'19
evening set	1692 Oct 02 19:35	25°A29'22			1697 Apr 25 03:51	0°B	
	1692 Oct 09 10:40	0°ML		max. Earth dist.	1697 May 20 13:40	18°B38'14	2.44340 AU
max. Earth dist.	1692 Oct 18 15:27	6°ML19'28	2.52316 AU	asc. node	1697 Jun 01 03:51	26°B56'53	
desc. node	1692 Oct 27 09:07	12°ML23'49		morning rise	1697 Jun 04 04:55	29°B06'39	
					1697 Jun 05 11:03	0°II	
conjunction	1692 Nov 21 12:34	0°J15'08	0°-15'-11		1697 Jul 19 00:35	0°S	
minimum elong	1692 Nov 21 11:51	0°J13'50	0°15'13		1697 Sep 03 04:23	0°Q	
behind sun begin	1692 Nov 21 04:03	29°ML59'48			1697 Oct 22 18:08	0°P	
behind sun end	1692 Nov 21 19:38	0°J27'52			1697 Dec 19 06:56	0°A	
	1692 Nov 21 04:10	0°J		retrograde	1698 Feb 16 17:23	15°A49'10	
	1692 Dec 31 20:39	0°Z		opposition	1698 Mar 27 06:25	7°A04'14	3°04'44
morning rise	1693 Jan 14 23:32	10°Z41'57		greatest brilliancy	1698 Mar 28 00:55	6°A46'23	-1.4m
	1693 Feb 09 02:02	0°≈		min. Earth dist.	1698 Apr 01 08:36	5°A06'29	0.63094 AU
	1693 Mar 19 14:03	0°H			1698 Apr 16 10:52	30°R P	
	1693 Apr 27 05:01	0°Y		direct	1698 May 07 14:44	27°P05'18	
	1693 Jun 05 21:55	0°B			1698 May 29 23:34	0°A	
	1693 Jul 17 20:55	0°II		desc. node	1698 Jun 19 05:11	6°A34'23	
asc. node	1693 Aug 27 05:54	26°II27'15			1698 Aug 04 17:31	0°ML	
	1693 Sep 02 01:08	0°S			1698 Sep 20 05:34	0°J	
	1693 Oct 30 21:27	0°Q			1698 Oct 31 15:30	0°Z	
retrograde	1693 Dec 08 12:26	8°Q08'05			1698 Dec 09 17:15	0°≈	
	1694 Jan 13 05:08	30°R S			1699 Jan 16 23:57	0°H	
min. Earth dist.	1694 Jan 15 01:46	29°S15'36	0.65586 AU		1699 Feb 24 15:12	0°Y	
opposition	1694 Jan 17 17:00	28°S12'16	4°22'30	evening set	1699 Apr 01 17:42	27°Y13'02	
greatest brilliancy	1694 Jan 17 02:53	28°S26'24	-1.3m		1699 Apr 05 12:08	0°B	
direct	1694 Feb 26 04:50	18°S49'09		asc. node	1699 Apr 19 03:11	9°B57'42	
	1694 Apr 15 21:41	0°Q			1699 May 17 05:03	0°II	
	1694 Jun 16 02:17	0°P					
	1694 Aug 05 13:01	0°A		conjunction	1699 May 30 22:20	9°II33'34	0°25'24
desc. node	1694 Sep 14 08:01	25°A51'36		minimum elong	1699 May 30 21:00	9°II31'15	0°25'24
	1694 Sep 20 11:01	0°ML			1699 Jun 29 23:29	0°S	
	1694 Nov 02 04:01	0°J		max. Earth dist.	1699 Jun 29 23:06	29°II59'21	2.56971 AU
evening set	1694 Nov 19 12:56	12°J44'32		morning rise	1699 Jul 23 01:54	15°S17'58	
	1694 Dec 12 11:45	0°Z			1699 Aug 14 17:38	0°Q	
max. Earth dist.	1694 Dec 12 21:42	0°Z18'57	2.39603 AU		1699 Oct 01 07:17	0°P	
					1699 Nov 20 00:27	0°A	
conjunction	1695 Jan 17 22:09	28°Z10'46	-1°-1'-40		1700 Jan 13 10:40	0°ML	
minimum elong	1695 Jan 17 20:32	28°Z07'37	1°01'41	retrograde	1700 Apr 03 05:36	25°ML29'26	
	1695 Jan 20 05:54	0°≈		desc. node	1700 May 07 04:19	18°ML39'46	
	1695 Feb 27 07:46	0°H		opposition	1700 May 08 19:36	18°ML04'55	0°-4'-41
morning rise	1695 Mar 27 19:41	22°H22'44		greatest brilliancy	1698 Oct 21 04:29	22°J12'23	-7.9m
	1695 Apr 06 14:52	0°Y		min. Earth dist.	1700 May 16 23:07	15°ML10'17	0.52467 AU
	1695 May 16 00:03	0°B		direct	1700 Jun 17 00:17	9°ML01'14	
	1695 Jun 26 06:44	0°II			1700 Aug 19 20:03	0°J	
asc. node	1695 Jul 15 04:10	13°II09'10			1700 Oct 06 01:15	0°Z	
	1695 Aug 09 06:17	0°S			1700 Nov 16 05:45	0°≈	
	1695 Sep 26 08:05	0°Q			1700 Dec 25 18:18	0°H	
	1695 Nov 23 15:27	0°P			1701 Feb 03 09:59	0°Y	
retrograde	1696 Jan 11 22:33	11°P50'15		asc. node	1701 Mar 07 01:33	23°Y21'36	
opposition	1696 Feb 20 21:14	2°P18'24	4°24'13		1701 Mar 16 05:38	0°B	
greatest brilliancy	1696 Feb 21 02:12	2°P13'28	-1.2m		1701 Apr 27 19:09	0°II	
min. Earth dist.	1696 Feb 22 03:22	1°P48'30	0.67653 AU	evening set	1701 May 25 09:47	18°II47'06	
	1696 Feb 26 17:50	30°R Q			1701 Jun 11 05:19	0°S	
direct	1696 Apr 02 01:04	22°Q22'34					
	1696 May 10 21:25	0°P		conjunction	1701 Jul 15 01:09	22°S08'33	1°01'58
	1696 Jul 12 10:21	0°A		minimum elong	1701 Jul 15 00:04	22°S06'49	1°01'57
desc. node	1696 Aug 01 06:18	11°A45'12		max. Earth dist.	1701 Jul 27 03:43	29°S57'28	2.64989 AU

	1701 Jul 27 05:17	0°♈		min. Earth dist.	1706 Nov 17 15:37	5°♊26'43	0.52369 AU
morning rise	1701 Aug 30 20:52	22°♈08'49		opposition	1706 Nov 25 05:32	2°♊35'02	1°23'57
	1701 Sep 12 05:57	0°♎		greatest brilliancy	1706 Nov 24 14:27	2°♊49'18	-2.0m
	1701 Oct 29 20:09	0°♊			1706 Dec 02 07:41	30°♋♌	
	1701 Dec 16 23:02	0°♌		direct	1706 Dec 30 04:43	24°♌53'41	
	1702 Feb 04 10:08	0°♌			1707 Jan 29 12:30	0°♊	
desc. node	1702 Mar 25 02:49	27°♌13'30			1707 Apr 06 03:18	0°♌	
	1702 Mar 30 14:10	0°♌			1707 May 29 03:52	0°♈	
retrograde	1702 Jun 08 02:05	21°♌30'34			1707 Jul 17 21:09	0°♎	
opposition	1702 Jul 09 00:58	16°♌10'51	-5°-36'-33		1707 Sep 03 06:55	0°♊	
greatest brilliancy	1702 Jul 10 12:17	15°♌45'38	-2.7m	evening set	1707 Sep 18 22:38	10°♊14'06	
min. Earth dist.	1702 Jul 14 21:01	14°♌31'15	0.39859 AU	max. Earth dist.	1707 Oct 07 21:57	22°♊52'57	2.56752 AU
direct	1702 Aug 10 17:37	10°♌06'26			1707 Oct 18 09:59	0°♌	
	1702 Oct 09 22:19	0°♌					
	1702 Nov 26 18:38	0°♋		conjunction	1707 Nov 05 14:45	12°♌32'43	0°05'39
	1703 Jan 09 09:52	0°♎		minimum elong	1707 Nov 05 14:59	12°♌33'08	0°05'40
asc. node	1703 Jan 23 00:41	9°♎26'41		behind sun begin	1707 Nov 04 19:28	11°♌59'11	
	1703 Feb 21 20:36	0°♌		behind sun end	1707 Nov 06 10:31	13°♌07'07	
	1703 Apr 07 07:29	0°♊		desc. node	1707 Nov 15 00:48	19°♌08'27	
	1703 May 23 01:29	0°♌			1707 Nov 30 07:38	0°♌	
evening set	1703 Jul 06 14:08	28°♌34'05		morning rise	1707 Dec 26 01:21	18°♌42'03	
	1703 Jul 08 20:04	0°♈			1708 Jan 10 06:58	0°♌	
max. Earth dist.	1703 Aug 19 11:11	26°♈28'41	2.67597 AU		1708 Feb 18 19:53	0°♌	
					1708 Mar 28 14:36	0°♋	
conjunction	1703 Aug 22 02:03	28°♈08'41	1°07'55		1708 May 06 11:28	0°♎	
minimum elong	1703 Aug 22 02:26	28°♈09'18	1°07'54		1708 Jun 15 11:36	0°♌	
	1703 Aug 25 00:01	0°♎			1708 Jul 28 02:51	0°♊	
morning rise	1703 Oct 05 13:04	26°♎34'05		asc. node	1708 Sep 13 21:32	29°♊32'02	
	1703 Oct 10 20:57	0°♊			1708 Sep 14 17:50	0°♌	
	1703 Nov 25 23:43	0°♌		retrograde	1708 Nov 25 18:32	24°♌17'33	
	1704 Jan 10 05:04	0°♌		min. Earth dist.	1708 Dec 31 14:18	15°♌59'16	0.62996 AU
desc. node	1704 Feb 10 02:30	20°♌47'46		opposition	1709 Jan 04 17:35	14°♌20'04	3°58'18
	1704 Feb 23 16:35	0°♌		greatest brilliancy	1709 Jan 03 21:36	14°♌40'04	-1.4m
	1704 Apr 07 20:24	0°♌		direct	1709 Feb 12 05:11	5°♌17'25	
	1704 May 23 01:27	0°♋			1709 May 01 21:40	0°♈	
	1704 Jul 15 03:20	0°♎			1709 Jun 26 00:46	0°♎	
retrograde	1704 Aug 24 23:15	10°♎12'35			1709 Aug 14 03:46	0°♊	
min. Earth dist.	1704 Sep 20 13:25	5°♎40'39	0.39814 AU		1709 Sep 28 16:41	0°♌	
opposition	1704 Sep 26 21:51	3°♎46'09	-4°-27'-24	desc. node	1709 Oct 01 23:17	2°♌14'18	
greatest brilliancy	1704 Sep 25 17:07	4°♎07'52	-2.7m	evening set	1709 Oct 31 10:08	22°♌50'38	
	1704 Oct 11 03:55	30°♋♌			1709 Nov 10 08:57	0°♌	
direct	1704 Oct 27 06:13	28°♋18'17		max. Earth dist.	1709 Nov 15 11:16	3°♌42'03	2.44554 AU
	1704 Nov 12 13:27	0°♎			1709 Dec 20 19:30	0°♌	
asc. node	1704 Dec 10 00:10	8°♎46'37					
	1705 Jan 21 10:14	0°♌		conjunction	1709 Dec 25 03:24	3°♌17'26	0°-47'-27
	1705 Mar 13 10:52	0°♊		minimum elong	1709 Dec 25 01:15	3°♌13'20	0°47'26
	1705 May 01 09:56	0°♌			1710 Jan 28 17:27	0°♌	
	1705 Jun 18 21:14	0°♈		greatest brilliancy	1710 Feb 10 12:52	10°♌01'43	1.2m
	1705 Aug 05 18:55	0°♎		morning rise	1710 Feb 26 10:39	22°♌31'51	
evening set	1705 Aug 12 03:07	4°♎00'52			1710 Mar 07 22:30	0°♋	
max. Earth dist.	1705 Sep 11 04:08	23°♎13'48	2.64775 AU		1710 Apr 15 07:38	0°♎	
	1705 Sep 21 14:50	0°♊			1710 May 24 18:05	0°♌	
					1710 Jul 05 03:31	0°♊	
conjunction	1705 Sep 26 15:37	3°♊16'47	0°47'55	asc. node	1710 Aug 01 21:44	19°♊02'28	
minimum elong	1705 Sep 26 16:46	3°♊18'39	0°47'55		1710 Aug 18 14:08	0°♌	
	1705 Nov 05 22:23	0°♌			1710 Oct 07 11:55	0°♈	
morning rise	1705 Nov 10 22:06	3°♌22'21		retrograde	1710 Dec 30 13:33	29°♈08'27	
	1705 Dec 19 13:25	0°♌		opposition	1711 Feb 08 17:32	19°♈24'26	4°33'08
desc. node	1705 Dec 28 02:05	5°♌59'55		min. Earth dist.	1711 Feb 08 11:10	19°♈30'48	0.67620 AU
	1706 Jan 30 14:40	0°♌		greatest brilliancy	1711 Feb 08 14:56	19°♈27'03	-1.2m
	1706 Mar 12 09:34	0°♌		direct	1711 Mar 21 09:15	9°♈38'17	
	1706 Apr 21 11:49	0°♋			1711 May 29 21:02	0°♎	
	1706 May 31 21:28	0°♎			1711 Jul 23 19:25	0°♊	
	1706 Jul 13 13:36	0°♌		desc. node	1711 Aug 19 22:05	16°♊51'48	
	1706 Sep 03 03:05	0°♊			1711 Sep 08 22:39	0°♌	
retrograde	1706 Oct 18 01:06	11°♊52'48			1711 Oct 21 23:37	0°♌	
asc. node	1706 Oct 27 22:13	11°♊09'56			1711 Dec 01 07:30	0°♌	

evening set	1711 Dec 27 18:32	20°☾26'28		max. Earth dist.	1716 Jul 17 08:18	19°☾09'23	2.62485 AU
	1712 Jan 08 23:16	0°≈			1716 Aug 03 02:01	0°♊	
	1712 Feb 15 22:50	0°♋		morning rise	1716 Aug 16 10:32	8°♊34'22	
					1716 Sep 19 05:15	0°♌	
conjunction	1712 Mar 03 08:29	12°♋55'42	0°-58'-21		1716 Nov 06 09:22	0°♍	
minimum elong	1712 Mar 03 11:05	13°♋00'50	0°58'21		1716 Dec 26 00:45	0°♎	
	1712 Mar 25 05:03	0°♌			1717 Feb 17 16:29	0°♏	
max. Earth dist.	1712 Apr 19 10:46	19°♌21'32	2.39133 AU	desc. node	1717 Apr 10 19:23	22°♏11'05	
	1712 May 03 14:21	0°♍		retrograde	1717 May 09 23:29	26°♏48'51	
morning rise	1712 May 11 21:33	6°♍09'54		opposition	1717 Jun 11 21:03	20°♏38'25	-3°-19'-1
	1712 Jun 13 19:44	0°♎		greatest brilliancy	1717 Jun 13 05:34	20°♏12'20	-2.4m
asc. node	1712 Jun 18 20:05	3°♎32'27		min. Earth dist.	1717 Jun 19 22:53	18°♏04'12	0.44337 AU
	1712 Jul 27 10:22	0°☾		direct	1717 Jul 17 15:09	13°♏09'46	
	1712 Sep 12 00:31	0°♏			1717 Sep 10 04:57	0°☾	
	1712 Nov 02 08:08	0°♌			1717 Oct 28 07:10	0°≈	
	1713 Jan 12 21:03	0°♍			1717 Dec 09 10:58	0°♋	
retrograde	1713 Feb 02 19:40	2°♍27'33			1718 Jan 19 17:23	0°♌	
	1713 Feb 22 10:52	30°♌♌		asc. node	1718 Feb 08 16:37	14°♌21'53	
opposition	1713 Mar 14 01:14	23°♌21'18	3°45'50		1718 Mar 02 17:58	0°♍	
greatest brilliancy	1713 Mar 14 16:07	23°♌06'44	-1.3m		1718 Apr 15 05:44	0°♎	
min. Earth dist.	1713 Mar 17 15:56	21°♌56'31	0.65659 AU		1718 May 30 08:11	0°☾	
direct	1713 Apr 24 12:30	13°♌19'06		evening set	1718 Jun 21 01:26	14°☾07'40	
	1713 Jun 23 12:13	0°♍			1718 Jul 15 17:25	0°♏	
desc. node	1713 Jul 06 20:57	6°♍37'41					
	1713 Aug 16 07:00	0°♎		conjunction	1718 Aug 07 17:44	14°♏42'04	1°08'54
	1713 Sep 30 01:38	0°♏		minimum elong	1718 Aug 07 17:34	14°♏41'49	1°08'53
	1713 Nov 09 22:21	0°☾		max. Earth dist.	1718 Aug 10 15:19	16°♏32'55	2.67229 AU
	1713 Dec 18 18:12	0°≈			1718 Aug 31 18:25	0°♌	
	1714 Jan 25 20:28	0°♋		morning rise	1718 Sep 21 17:22	13°♌20'24	
	1714 Mar 05 07:00	0°♌			1718 Oct 17 19:55	0°♍	
evening set	1714 Mar 08 01:50	2°♌08'38			1718 Dec 03 12:44	0°♎	
	1714 Apr 13 22:38	0°♍			1719 Jan 18 21:26	0°♏	
asc. node	1714 May 06 18:42	16°♍41'48		desc. node	1719 Feb 26 18:34	25°♏07'57	
					1719 Mar 06 08:32	0°☾	
conjunction	1714 May 10 15:38	19°♍29'01	0°02'30		1719 Apr 23 05:20	0°≈	
minimum elong	1714 May 10 15:28	19°♍28'43	0°02'30		1719 Jun 18 16:04	0°♋	
behind sun begin	1714 May 09 14:30	18°♍43'52		retrograde	1719 Jul 28 09:18	9°♋08'06	
behind sun end	1714 May 11 16:27	20°♍13'31		min. Earth dist.	1719 Aug 25 19:50	4°♋29'41	0.37401 AU
	1714 May 25 10:14	0°♎		opposition	1719 Aug 27 22:35	3°♋55'45	-6°-33'-52
max. Earth dist.	1714 Jun 18 00:55	16°♎25'33	2.52480 AU	greatest brilliancy	1719 Aug 27 12:12	4°♋02'42	-2.9m
morning rise	1714 Jul 06 19:38	29°♎10'26			1719 Sep 14 04:10	30°♌≈	
	1714 Jul 08 01:10	0°☾		direct	1719 Sep 26 08:55	29°≈01'19	
	1714 Aug 22 20:19	0°♏			1719 Oct 08 16:10	0°♋	
	1714 Oct 09 21:57	0°♌			1719 Dec 17 23:07	0°♌	
	1714 Nov 30 08:18	0°♍		asc. node	1719 Dec 27 15:21	5°♌41'43	
	1715 Jan 31 19:40	0°♎			1720 Feb 04 23:27	0°♍	
retrograde	1715 Mar 15 21:46	9°♎04'53			1720 Mar 23 03:28	0°♎	
opposition	1715 Apr 21 20:55	1°♎03'30	1°25'35		1720 May 09 10:31	0°☾	
greatest brilliancy	1715 Apr 22 11:06	0°♎50'19	-1.7m		1720 Jun 26 01:51	0°♏	
	1715 Apr 24 17:00	30°♌♍		evening set	1720 Jul 28 18:46	20°♏36'30	
min. Earth dist.	1715 Apr 29 00:55	28°♍23'36	0.57242 AU		1720 Aug 12 14:40	0°♌	
desc. node	1715 May 24 19:38	21°♍49'51		max. Earth dist.	1720 Sep 01 20:01	12°♌53'04	2.66525 AU
direct	1715 Jun 01 06:46	21°♍27'17					
	1715 Jul 10 07:11	0°♎		conjunction	1720 Sep 12 08:18	19°♌37'43	0°58'30
	1715 Sep 04 05:56	0°♏		minimum elong	1720 Sep 12 09:18	19°♌39'19	0°58'29
	1715 Oct 17 18:54	0°☾			1720 Sep 28 09:40	0°♍	
	1715 Nov 26 18:08	0°≈		morning rise	1720 Oct 26 21:24	18°♍39'13	
	1716 Jan 04 14:11	0°♋			1720 Nov 12 22:56	0°♎	
	1716 Feb 12 16:53	0°♌			1720 Dec 27 01:58	0°♏	
asc. node	1716 Mar 23 18:27	29°♌48'10		desc. node	1721 Jan 13 17:15	12°♏15'48	
	1716 Mar 24 00:56	0°♍			1721 Feb 07 20:24	0°☾	
	1716 May 05 04:02	0°♎			1721 Mar 21 12:46	0°≈	
evening set	1716 May 06 08:25	0°♎49'20			1721 May 01 17:01	0°♋	
	1716 Jun 18 06:11	0°☾			1721 Jun 12 17:33	0°♌	
					1721 Jul 29 12:19	0°♍	
conjunction	1716 Jun 28 17:26	6°☾56'46	0°51'42	retrograde	1721 Sep 29 10:20	21°♍07'43	
minimum elong	1716 Jun 28 15:56	6°☾54'16	0°51'41	min. Earth dist.	1721 Oct 27 20:57	15°♍33'42	0.47117 AU

opposition	1721 Nov 05 02:34	12°♄38'09	0°-28'-24			1726 Dec 08 17:47	0°♄	
greatest brilliancy	1721 Nov 04 21:11	12°♄42'57	-2.3m	max. Earth dist.		1727 Jan 13 05:35	27°♄27'26	2.37548 AU
asc. node	1721 Nov 13 15:28	9°♄45'34				1727 Jan 16 11:25	0°♄	
direct	1721 Dec 08 05:39	5°♄44'46						
	1722 Feb 21 02:31	0°♄		conjunction		1727 Feb 03 08:31	14°♄04'36	-1°-4'-48
	1722 Apr 16 15:45	0°♄		minimum elong		1727 Feb 03 08:15	14°♄04'06	1°04'50
	1722 Jun 06 06:06	0°♄				1727 Feb 23 12:24	0°♄	
	1722 Jul 25 01:53	0°♄				1727 Apr 02 18:44	0°♄	
evening set	1722 Sep 03 22:35	25°♄57'02		morning rise		1727 Apr 14 20:08	9°♄18'34	
	1722 Sep 10 04:33	0°♄				1727 May 12 03:09	0°♄	
max. Earth dist.	1722 Sep 26 20:56	10°♄55'39	2.60466 AU			1727 Jun 22 07:54	0°♄	
				asc. node		1727 Jul 06 12:37	9°♄57'07	
conjunction	1722 Oct 20 08:02	26°♄36'21	0°24'19			1727 Aug 05 02:00	0°♄	
minimum elong	1722 Oct 20 08:53	26°♄37'46	0°24'19			1727 Sep 21 09:44	0°♄	
	1722 Oct 25 08:13	0°♄				1727 Nov 14 22:50	0°♄	
desc. node	1722 Dec 01 16:10	25°♄53'04		retrograde		1728 Jan 20 18:19	19°♄34'33	
morning rise	1722 Dec 07 01:02	29°♄41'34		opposition		1728 Feb 29 11:57	10°♄10'51	4°13'35
	1722 Dec 07 11:24	0°♄		greatest brilliancy		1728 Feb 29 20:53	10°♄02'01	-1.2m
	1723 Jan 17 19:04	0°♄		min. Earth dist.		1728 Mar 02 14:31	9°♄20'52	0.67220 AU
	1723 Feb 26 17:28	0°♄		direct		1728 Apr 10 19:42	0°♄11'18	
	1723 Apr 06 21:24	0°♄				1728 Jul 06 13:35	0°♄	
	1723 May 16 03:37	0°♄		desc. node		1728 Jul 23 12:43	9°♄36'52	
	1723 Jun 25 17:15	0°♄				1728 Aug 25 10:14	0°♄	
	1723 Aug 08 17:12	0°♄				1728 Oct 08 06:23	0°♄	
asc. node	1723 Oct 01 14:29	29°♄25'28				1728 Nov 17 19:44	0°♄	
	1723 Oct 02 23:45	0°♄				1728 Dec 26 12:41	0°♄	
retrograde	1723 Nov 12 06:57	9°♄18'15				1729 Feb 02 12:47	0°♄	
min. Earth dist.	1723 Dec 16 04:33	1°♄39'23	0.59454 AU	greatest brilliancy		1729 Feb 05 06:20	2°♄09'19	1.2m
	1723 Dec 20 09:14	30°♄11		evening set		1729 Feb 08 04:08	4°♄26'55	
opposition	1723 Dec 21 18:44	29°♄26'48	3°16'44			1729 Mar 12 20:31	0°♄	
greatest brilliancy	1723 Dec 20 19:45	29°♄49'34	-1.6m					
direct	1724 Jan 28 01:02	20°♄50'22		conjunction		1729 Apr 16 07:37	26°♄14'27	0°-23'-39
	1724 Mar 10 22:54	0°♄		minimum elong		1729 Apr 16 09:30	26°♄17'58	0°23'39
	1724 May 13 00:27	0°♄				1729 Apr 21 08:33	0°♄	
	1724 Jul 04 05:02	0°♄		asc. node		1729 May 23 10:52	23°♄25'54	
	1724 Aug 21 11:32	0°♄				1729 Jun 01 16:17	0°♄	
	1724 Oct 05 19:06	0°♄		max. Earth dist.		1729 Jun 01 23:51	0°♄13'23	2.47368 AU
evening set	1724 Oct 13 09:16	5°♄12'21		morning rise		1729 Jun 17 10:35	11°♄02'50	
desc. node	1724 Oct 18 14:59	8°♄49'49				1729 Jul 15 05:05	0°♄	
max. Earth dist.	1724 Oct 28 02:51	15°♄27'47	2.49664 AU			1729 Aug 30 03:45	0°♄	
	1724 Nov 17 12:43	0°♄				1729 Oct 18 00:11	0°♄	
						1729 Dec 11 09:48	0°♄	
conjunction	1724 Dec 03 13:48	11°♄41'18	0°-27'-27	retrograde		1730 Feb 26 18:23	24°♄14'31	
minimum elong	1724 Dec 03 12:27	11°♄38'50	0°27'27	opposition		1730 Apr 05 19:32	15°♄43'24	2°33'31
	1724 Dec 28 03:24	0°♄		greatest brilliancy		1730 Apr 06 14:12	15°♄25'35	-1.5m
morning rise	1725 Jan 29 20:16	25°♄01'29		min. Earth dist.		1730 Apr 11 16:27	13°♄28'55	0.61273 AU
	1725 Feb 05 06:13	0°♄		direct		1730 May 16 22:19	5°♄49'21	
	1725 Mar 15 15:20	0°♄		desc. node		1730 Jun 10 12:07	9°♄20'48	
	1725 Apr 23 03:23	0°♄				1730 Jul 28 17:59	0°♄	
	1725 Jun 01 16:41	0°♄				1730 Sep 15 04:15	0°♄	
	1725 Jul 13 08:13	0°♄				1730 Oct 27 03:44	0°♄	
asc. node	1725 Aug 18 12:53	24°♄14'35				1730 Dec 05 11:27	0°♄	
	1725 Aug 27 15:10	0°♄				1731 Jan 12 21:30	0°♄	
	1725 Oct 20 08:05	0°♄				1731 Feb 20 15:25	0°♄	
retrograde	1725 Dec 17 06:29	16°♄13'01				1731 Apr 01 15:00	0°♄	
min. Earth dist.	1726 Jan 24 16:52	7°♄03'08	0.66587 AU	asc. node		1731 Apr 10 09:16	6°♄24'28	
opposition	1726 Jan 26 11:40	6°♄20'14	4°30'13	evening set		1731 Apr 16 01:41	10°♄31'52	
greatest brilliancy	1726 Jan 26 01:29	6°♄30'27	-1.3m			1731 May 13 10:11	0°♄	
	1726 Feb 13 03:11	30°♄47						
direct	1726 Mar 07 10:24	26°♄47'44		conjunction		1731 Jun 11 23:23	20°♄22'24	0°36'32
	1726 Mar 31 17:23	0°♄		minimum elong		1731 Jun 11 21:47	20°♄19'40	0°36'31
	1726 Jun 10 13:20	0°♄				1731 Jun 26 06:18	0°♄	
	1726 Aug 01 06:01	0°♄		max. Earth dist.		1731 Jul 07 16:03	7°♄35'38	2.59172 AU
desc. node	1726 Sep 05 13:15	22°♄37'49		morning rise		1731 Aug 02 06:50	24°♄22'21	
	1726 Sep 16 13:32	0°♄				1731 Aug 10 23:51	0°♄	
	1726 Oct 29 09:38	0°♄				1731 Sep 27 08:15	0°♄	
evening set	1726 Dec 03 03:59	25°♄45'59				1731 Nov 15 08:34	0°♄	

	1732 Jan 06 10:46	0°♌			1737 Jan 09 19:47	0°♏		
	1732 Mar 11 16:13	0°♊			1737 Mar 06 10:29	0°♈		
retrograde	1732 Apr 15 11:26	6°♊15'34			1737 Apr 25 19:18	0°♎		
desc. node	1732 Apr 27 10:21	5°♊21'09			1737 Jun 13 21:26	0°♍		
	1732 May 17 23:11	30°♌♌			1737 Aug 01 02:02	0°♐		
opposition	1732 May 20 03:39	29°♌14'55	-1°-8'-15	evening set	1737 Aug 20 09:18	12°♐13'32		
greatest brilliancy	1732 May 20 16:55	29°♌03'25	-2.1m	max. Earth dist.	1737 Sep 16 19:33	29°♐52'27	2.63449 AU	
min. Earth dist.	1732 May 28 13:06	26°♌20'27	0.49615 AU		1737 Sep 17 00:12	0°♑		
direct	1732 Jun 27 08:19	20°♌38'00						
	1732 Aug 06 02:20	0°♊		conjunction	1737 Oct 05 02:06	11°♑50'37	0°40'09	
	1732 Sep 28 05:08	0°♋		minimum elong	1737 Oct 05 03:13	11°♑52'28	0°40'08	
	1732 Nov 09 17:43	0°♌			1737 Nov 01 06:22	0°♌		
	1732 Dec 19 21:19	0°♍		morning rise	1737 Nov 20 00:31	12°♌47'49		
	1733 Jan 28 22:39	0°♎			1737 Dec 14 17:19	0°♊		
asc. node	1733 Feb 25 09:15	20°♎08'14		desc. node	1737 Dec 18 07:30	2°♊32'04		
	1733 Mar 11 01:46	0°♏			1738 Jan 25 12:03	0°♋		
	1733 Apr 22 20:56	0°♈			1738 Mar 06 23:06	0°♌		
evening set	1733 Jun 04 12:01	28°♈41'48			1738 Apr 15 16:03	0°♍		
	1733 Jun 06 11:21	0°♎			1738 May 25 12:56	0°♎		
	1733 Jul 22 13:27	0°♍			1738 Jul 06 03:12	0°♏		
					1738 Aug 22 05:01	0°♈		
conjunction	1733 Jul 23 22:06	0°♍52'27	1°05'47	asc. node	1738 Oct 18 06:18	22°♈07'04		
minimum elong	1733 Jul 23 21:21	0°♍51'16	1°05'47	retrograde	1738 Oct 27 16:18	22°♈43'41		
max. Earth dist.	1733 Aug 01 16:28	6°♍29'50	2.66021 AU	min. Earth dist.	1738 Nov 28 11:38	15°♈49'58	0.55074 AU	
morning rise	1733 Sep 07 22:27	0°♐14'11		opposition	1738 Dec 05 10:01	13°♈09'26	2°13'13	
	1733 Sep 07 13:31	0°♐		greatest brilliancy	1738 Dec 04 13:23	13°♈29'25	-1.8m	
	1733 Oct 24 22:09	0°♑		direct	1739 Jan 10 06:10	5°♈06'05		
	1733 Dec 11 10:20	0°♌			1739 Mar 29 03:05	0°♎		
	1734 Jan 28 11:33	0°♊			1739 May 23 10:25	0°♍		
desc. node	1734 Mar 15 09:22	27°♊35'27			1739 Jul 12 21:30	0°♐		
	1734 Mar 19 13:44	0°♋			1739 Aug 29 14:13	0°♑		
	1734 May 18 20:05	0°♌		evening set	1739 Sep 27 21:08	19°♑15'13		
retrograde	1734 Jun 26 02:31	7°♌59'43			1739 Oct 13 18:56	0°♌		
opposition	1734 Jul 26 08:37	2°♌58'23	-6°-33'-12	max. Earth dist.	1739 Oct 15 00:22	0°♌50'13	2.54367 AU	
greatest brilliancy	1734 Jul 27 08:46	2°♌41'58	-2.8m	desc. node	1739 Nov 05 06:39	15°♌33'00		
min. Earth dist.	1734 Jul 29 18:05	2°♌03'04	0.38169 AU					
	1734 Aug 06 20:17	30°♌♌		conjunction	1739 Nov 15 14:08	22°♌49'24	0°-6'-15	
direct	1734 Aug 26 11:24	27°♌34'31		minimum elong	1739 Nov 15 13:51	22°♌48'54	0°06'15	
	1734 Sep 14 13:43	0°♌		behind sun begin	1739 Nov 14 18:00	22°♌13'42		
	1734 Nov 16 17:03	0°♍		behind sun end	1739 Nov 16 09:43	23°♌24'08		
	1735 Jan 02 01:18	0°♎			1739 Nov 25 15:24	0°♊		
asc. node	1735 Jan 13 08:21	7°♎33'46			1740 Jan 05 11:38	0°♋		
	1735 Feb 15 18:01	0°♏		morning rise	1740 Jan 07 02:07	1°♋12'11		
	1735 Apr 01 21:54	0°♈			1740 Feb 13 20:52	0°♌		
	1735 May 18 02:17	0°♎			1740 Mar 23 11:52	0°♍		
	1735 Jul 04 02:43	0°♍			1740 May 01 04:49	0°♎		
evening set	1735 Jul 15 04:15	7°♍01'07			1740 Jun 09 23:39	0°♏		
	1735 Aug 20 09:10	0°♐			1740 Jul 22 02:46	0°♈		
max. Earth dist.	1735 Aug 24 17:50	2°♐46'34	2.67441 AU	asc. node	1740 Sep 04 05:32	28°♈22'01		
					1740 Sep 06 23:47	0°♎		
conjunction	1735 Aug 30 05:18	6°♐15'59	1°05'31		1740 Nov 12 07:44	0°♍		
minimum elong	1735 Aug 30 05:57	6°♐17'02	1°05'30	retrograde	1740 Dec 03 18:06	2°♍46'33		
	1735 Oct 06 05:07	0°♑			1740 Dec 23 19:44	30°♌♌		
morning rise	1735 Oct 13 13:48	4°♑45'57		min. Earth dist.	1741 Jan 09 12:53	24°♑08'40	0.64551 AU	
	1735 Nov 21 02:38	0°♌		opposition	1741 Jan 12 20:08	22°♑49'15	4°14'23	
	1736 Jan 04 21:37	0°♊		greatest brilliancy	1741 Jan 12 03:07	23°♑06'18	-1.4m	
desc. node	1736 Jan 31 08:56	18°♊04'20		direct	1741 Feb 20 21:04	13°♑34'43		
	1736 Feb 17 15:48	0°♋			1741 Apr 23 01:32	0°♍		
	1736 Mar 31 16:39	0°♌			1741 Jun 20 05:45	0°♐		
	1736 May 13 19:55	0°♍			1741 Aug 09 03:31	0°♑		
	1736 Jun 28 20:28	0°♎		desc. node	1741 Sep 22 05:58	28°♑50'43		
retrograde	1736 Sep 07 20:42	26°♎32'28			1741 Sep 23 22:50	0°♌		
min. Earth dist.	1736 Oct 04 17:43	21°♎44'32	0.42104 AU		1741 Nov 05 16:51	0°♊		
greatest brilliancy	1736 Oct 11 06:56	19°♎37'46	-2.6m	evening set	1741 Nov 11 12:12	4°♊13'09		
opposition	1736 Oct 12 08:37	19°♎16'59	-2°-55'-36	max. Earth dist.	1741 Nov 29 11:03	17°♊27'45	2.41724 AU	
direct	1736 Nov 12 13:18	13°♎19'05			1741 Dec 16 02:38	0°♋		
asc. node	1736 Nov 30 06:51	15°♎15'56						

conjunction	1742 Jan 07 16:56	17°☾20'41	0°-56'-38			1747 Jan 19 18:55	0°♈	
minimum elong	1742 Jan 07 14:51	17°☾16'38	0°56'38	retrograde		1747 Mar 26 13:33	18°♈38'16	
	1742 Jan 23 22:55	0°≈		opposition		1747 May 01 18:58	10°♈56'12	0°36'30
	1742 Mar 03 02:04	0°✠		greatest brilliancy		1747 May 02 02:07	10°♈49'41	-1.8m
morning rise	1742 Mar 15 09:43	9°✠41'50		min. Earth dist.		1747 May 09 12:44	8°♈06'42	0.54689 AU
	1742 Apr 10 09:23	0°♊		desc. node		1747 May 15 02:15	6°♈12'20	
	1742 May 19 18:05	0°♋		direct		1747 Jun 10 13:58	1°♈35'33	
	1742 Jun 30 00:17	0°♌				1747 Aug 27 01:23	0°♏	
asc. node	1742 Jul 23 03:34	16°♌02'07				1747 Oct 11 08:31	0°♏	
	1742 Aug 13 02:02	0°♍				1747 Nov 20 22:42	0°≈	
	1742 Sep 30 16:25	0°♎				1747 Dec 30 02:59	0°✠	
	1742 Dec 02 02:09	0°♏				1748 Feb 07 11:33	0°♊	
retrograde	1743 Jan 07 06:03	6°♏53'57		asc. node		1748 Mar 14 01:23	26°♊23'16	
	1743 Feb 09 07:54	30°♎♌				1748 Mar 19 00:39	0°♋	
opposition	1743 Feb 16 07:10	27°♎16'20	4°29'15			1748 Apr 30 08:00	0°♌	
greatest brilliancy	1743 Feb 16 08:50	27°♎14'40	-1.2m	evening set		1748 May 17 10:28	11°♌45'11	
min. Earth dist.	1743 Feb 16 21:05	27°♎02'28	0.67771 AU			1748 Jun 13 13:15	0°♍	
direct	1743 Mar 29 05:36	17°♎24'19						
	1743 May 20 05:03	0°♏		conjunction		1748 Jul 08 04:53	16°♍14'11	0°58'14
	1743 Jul 17 20:05	0°♐		minimum elong		1748 Jul 08 03:35	16°♍12'05	0°58'13
desc. node	1743 Aug 10 04:33	14°♐08'44		max. Earth dist.		1748 Jul 23 02:32	25°♍55'05	2.63973 AU
	1743 Sep 03 18:38	0°♑				1748 Jul 29 10:14	0°♎	
	1743 Oct 17 02:17	0°♏		morning rise		1748 Aug 24 18:52	16°♎52'53	
	1743 Nov 26 12:15	0°♐				1748 Sep 14 11:15	0°♏	
	1744 Jan 04 04:32	0°≈				1748 Nov 01 06:32	0°♐	
evening set	1744 Jan 11 20:07	6°≈01'24				1748 Dec 19 23:02	0°♈	
	1744 Feb 11 03:59	0°✠				1749 Feb 08 20:25	0°♏	
				desc. node		1749 Apr 01 00:50	26°♏19'20	
conjunction	1744 Mar 19 17:31	29°✠28'10	0°-48'-13			1749 Apr 09 18:10	0°♐	
minimum elong	1744 Mar 19 20:44	29°✠34'25	0°48'13	retrograde		1749 May 25 18:15	10°♐36'24	
	1744 Mar 20 09:56	0°♊		opposition		1749 Jun 26 13:45	4°♐55'09	-4°-38'-58
	1744 Apr 28 19:07	0°♋		greatest brilliancy		1749 Jun 28 03:19	4°♐26'53	-2.6m
max. Earth dist.	1744 May 10 10:54	8°♋38'32	2.41911 AU	min. Earth dist.		1749 Jul 03 18:07	2°♐46'16	0.41700 AU
morning rise	1744 May 26 02:51	20°♋03'54				1749 Jul 14 11:17	30°♎♏	
	1744 Jun 08 23:58	0°♌		direct		1749 Jul 30 16:32	28°♏12'39	
asc. node	1744 Jun 09 03:03	0°♌05'28				1749 Aug 15 23:48	0°♐	
	1744 Jul 22 12:09	0°♍				1749 Oct 18 14:29	0°≈	
	1744 Sep 06 18:00	0°♎				1749 Dec 02 02:37	0°✠	
	1744 Oct 26 20:45	0°♏				1750 Jan 13 11:04	0°♊	
	1744 Dec 26 13:59	0°♐		asc. node		1750 Jan 30 00:15	11°♊42'26	
retrograde	1745 Feb 11 05:45	10°♐29'45				1750 Feb 25 03:34	0°♋	
opposition	1745 Mar 22 02:30	1°♐34'48	3°23'26			1750 Apr 10 02:05	0°♌	
greatest brilliancy	1745 Mar 22 19:44	1°♐18'04	-1.4m			1750 May 25 11:44	0°♍	
	1745 Mar 26 04:03	30°♎♏		evening set		1750 Jun 30 01:02	22°♍57'15	
min. Earth dist.	1745 Mar 26 12:56	29°♏51'25	0.64367 AU			1750 Jul 11 01:15	0°♎	
direct	1745 May 02 12:33	21°♏33'25						
	1745 Jun 11 17:38	0°♐		conjunction		1750 Aug 16 00:11	22°♎54'34	1°08'47
desc. node	1745 Jun 27 03:12	6°♐26'16		minimum elong		1750 Aug 16 00:22	22°♎54'51	1°08'47
	1745 Aug 09 18:51	0°♑		max. Earth dist.		1750 Aug 15 20:14	22°♎48'16	2.67534 AU
	1745 Sep 24 12:49	0°♏				1750 Aug 27 03:37	0°♏	
	1745 Nov 04 17:31	0°♐		morning rise		1750 Sep 29 15:22	21°♏22'05	
	1745 Dec 13 17:05	0°≈				1750 Oct 13 02:28	0°♐	
	1746 Jan 20 21:38	0°✠				1750 Nov 28 11:18	0°♈	
	1746 Feb 28 10:01	0°♊				1751 Jan 13 04:02	0°♏	
evening set	1746 Mar 22 21:19	17°♊06'53		desc. node		1751 Feb 17 00:18	23°♏05'37	
	1746 Apr 09 03:31	0°♋				1751 Feb 27 09:47	0°♐	
asc. node	1746 Apr 27 02:44	13°♋09'14				1751 Apr 13 20:17	0°≈	
	1746 May 20 16:38	0°♌				1751 May 31 18:48	0°✠	
				retrograde		1751 Aug 14 03:05	27°✠23'38	
conjunction	1746 May 23 01:22	1°♌39'50	0°16'11	min. Earth dist.		1751 Sep 10 02:39	22°✠55'43	0.38402 AU
minimum elong	1746 May 23 00:24	1°♌38'07	0°16'10	opposition		1751 Sep 14 20:19	21°✠35'13	-5°-32'-26
max. Earth dist.	1746 Jun 25 17:18	24°♌52'16	2.55041 AU	greatest brilliancy		1751 Sep 13 20:13	21°✠52'22	-2.8m
	1746 Jul 03 08:00	0°♍		direct		1751 Oct 14 15:07	16°✠27'30	
morning rise	1746 Jul 16 21:14	9°♍01'59				1751 Dec 03 23:14	0°♊	
	1746 Aug 18 01:00	0°♎		asc. node		1751 Dec 17 23:36	6°♊50'58	
	1746 Oct 04 18:08	0°♏				1752 Jan 28 01:30	0°♋	
	1746 Nov 24 01:12	0°♐				1752 Mar 17 01:09	0°♌	

	1752 May 04 04:04	0°☿		minimum elong	1756 Dec 15 07:49	23°☿54'18	0°39'16
	1752 Jun 21 05:35	0°♈			1756 Dec 23 09:59	0°☿	
evening set	1752 Aug 06 00:04	28°♈45'07			1757 Jan 31 10:41	0°♈	
	1752 Aug 07 23:23	0°♈		morning rise	1757 Feb 13 22:00	10°♈31'18	
max. Earth dist.	1752 Sep 07 04:48	19°♈16'19	2.65664 AU		1757 Mar 10 17:41	0°♈	
				greatest brilliancy	1757 Apr 05 13:13	20°♈12'49	1.2m
conjunction	1752 Sep 20 11:44	27°♈50'50	0°52'45		1757 Apr 18 03:34	0°♈	
minimum elong	1752 Sep 20 12:51	27°♈52'38	0°52'45		1757 May 27 14:07	0°♈	
	1752 Sep 23 19:24	0°♈			1757 Jul 08 00:18	0°♈	
morning rise	1752 Nov 04 08:45	27°♈23'22		asc. node	1757 Aug 08 20:59	21°♈41'47	
	1752 Nov 08 06:10	0°♈			1757 Aug 21 15:52	0°☿	
	1752 Dec 22 03:08	0°♈			1757 Oct 11 15:09	0°♈	
desc. node	1753 Jan 04 00:10	9°♈00'43		retrograde	1757 Dec 24 22:54	24°♈08'52	
	1753 Feb 02 12:06	0°☿		min. Earth dist.	1758 Feb 02 04:40	14°♈43'07	0.67284 AU
	1753 Mar 15 16:04	0°♈		opposition	1758 Feb 03 03:20	14°♈20'25	4°33'27
	1753 Apr 25 04:18	0°♈		greatest brilliancy	1758 Feb 02 21:18	14°♈26'28	-1.2m
	1753 Jun 05 02:50	0°♈		direct	1758 Mar 15 11:25	4°♈39'52	
	1753 Jul 18 22:47	0°♈			1758 Jun 03 07:25	0°♈	
	1753 Sep 16 12:46	0°♈			1758 Jul 26 18:30	0°♈	
retrograde	1753 Oct 10 08:47	3°♈47'11		desc. node	1758 Aug 26 19:53	19°♈33'59	
	1753 Nov 02 06:32	30°♈			1758 Sep 11 14:26	0°♈	
asc. node	1753 Nov 03 21:53	29°♈28'33			1758 Oct 24 14:42	0°♈	
min. Earth dist.	1753 Nov 08 23:19	27°♈43'53	0.50062 AU		1758 Dec 03 23:37	0°☿	
opposition	1753 Nov 16 22:20	24°♈47'41	0°40'42	evening set	1758 Dec 16 16:10	9°☿43'43	
greatest brilliancy	1753 Nov 16 14:10	24°♈55'14	-2.1m		1759 Jan 11 16:42	0°♈	
direct	1753 Dec 21 03:04	17°♈26'14			1759 Feb 18 16:57	0°♈	
	1754 Feb 09 12:00	0°♈					
	1754 Apr 10 00:49	0°☿		conjunction	1759 Feb 19 12:56	0°♈39'28	-1°-3'-4
	1754 May 31 21:40	0°♈		minimum elong	1759 Feb 19 14:26	0°♈42'27	1°03'05
	1754 Jul 20 05:42	0°♈		max. Earth dist.	1759 Mar 21 01:59	23°♈52'50	2.37411 AU
	1754 Sep 05 13:09	0°♈			1759 Mar 28 22:39	0°♈	
evening set	1754 Sep 12 10:24	4°♈28'47		morning rise	1759 May 01 02:40	25°♈22'40	
max. Earth dist.	1754 Oct 03 04:08	18°♈10'09	2.58510 AU		1759 May 07 06:33	0°♈	
	1754 Oct 20 17:32	0°♈			1759 Jun 17 10:17	0°♈	
				asc. node	1759 Jun 26 19:35	6°♈37'14	
conjunction	1754 Oct 29 10:39	5°♈57'22	0°13'50		1759 Jul 31 00:21	0°☿	
minimum elong	1754 Oct 29 11:11	5°♈58'17	0°13'50		1759 Sep 15 18:58	0°♈	
behind sun begin	1754 Oct 29 00:36	5°♈40'07			1759 Nov 07 01:43	0°♈	
behind sun end	1754 Oct 29 21:47	6°♈16'28		retrograde	1760 Jan 28 18:37	27°♈23'38	
desc. node	1754 Nov 21 22:39	22°♈18'46		opposition	1760 Mar 08 05:36	18°♈09'12	3°58'43
	1754 Dec 02 18:47	0°♈		greatest brilliancy	1760 Mar 08 18:01	17°♈56'59	-1.3m
morning rise	1754 Dec 17 12:24	10°♈35'50		min. Earth dist.	1760 Mar 11 04:04	16°♈59'52	0.66482 AU
	1755 Jan 12 22:35	0°☿		direct	1760 Apr 18 15:22	8°♈07'31	
	1755 Feb 21 16:06	0°♈			1760 Jun 28 17:20	0°♈	
	1755 Apr 01 14:49	0°♈		desc. node	1760 Jul 13 18:51	7°♈58'37	
	1755 May 10 14:49	0°♈			1760 Aug 19 15:46	0°♈	
	1755 Jun 19 18:48	0°♈			1760 Oct 03 01:45	0°♈	
	1755 Aug 01 19:13	0°♈			1760 Nov 12 20:08	0°☿	
asc. node	1755 Sep 21 20:57	0°☿23'02			1760 Dec 21 15:07	0°♈	
	1755 Sep 21 02:53	0°☿			1761 Jan 28 16:18	0°♈	
retrograde	1755 Nov 20 17:41	18°☿30'50		evening set	1761 Feb 24 01:57	20°♈43'13	
min. Earth dist.	1755 Dec 25 17:07	10°☿29'18	0.61530 AU		1761 Mar 08 00:49	0°♈	
opposition	1755 Dec 30 12:06	8°☿34'46	3°43'29		1761 Apr 16 13:40	0°♈	
greatest brilliancy	1755 Dec 29 14:10	8°☿56'39	-1.5m				
	1756 Jan 30 20:29	30°♈		conjunction	1761 Apr 30 11:27	10°♈15'11	0°-8'-32
direct	1756 Feb 06 10:40	29°♈43'04		minimum elong	1761 Apr 30 12:05	10°♈16'21	0°08'33
	1756 Feb 13 05:40	0°☿		behind sun begin	1761 Apr 29 13:38	9°♈35'18	
	1756 May 06 00:48	0°♈		behind sun end	1761 May 01 10:32	10°♈57'22	
	1756 Jun 28 19:37	0°♈		asc. node	1761 May 13 18:01	19°♈53'08	
	1756 Aug 16 14:38	0°♈			1761 May 27 22:13	0°♈	
	1756 Oct 01 02:27	0°♈		max. Earth dist.	1761 Jun 11 17:11	10°♈22'20	2.50252 AU
desc. node	1756 Oct 08 21:05	5°♈19'30		morning rise	1761 Jun 28 18:21	22°♈06'00	
evening set	1756 Oct 23 09:49	15°♈25'56			1761 Jul 10 10:35	0°☿	
max. Earth dist.	1756 Nov 06 21:55	25°♈43'24	2.46870 AU		1761 Aug 25 05:39	0°♈	
	1756 Nov 12 20:40	0°♈			1761 Oct 12 12:55	0°♈	
					1761 Dec 03 22:02	0°♈	
conjunction	1756 Dec 15 09:42	23°♈57'50	0°-39'-16		1762 Feb 12 18:42	0°♈	

retrograde	1762 Mar 08 08:27	3°♄01'44			1767 Jun 29 08:33	0°♄	
	1762 Mar 30 06:10	30°♄		evening set	1767 Jul 23 14:29	15°♄19'16	
opposition	1762 Apr 14 19:28	24°♄46'22	1°56'20		1767 Aug 15 18:29	0°♄	
greatest brilliancy	1762 Apr 15 12:20	24°♄30'27	-1.6m	max. Earth dist.	1767 Aug 29 23:43	9°♄03'12	2.67044 AU
min. Earth dist.	1762 Apr 21 09:39	22°♄17'14	0.59142 AU				
direct	1762 May 25 13:31	15°♄00'41		conjunction	1767 Sep 07 07:33	14°♄22'30	1°01'51
desc. node	1762 May 31 17:17	15°♄15'26		minimum elong	1767 Sep 07 08:26	14°♄23'55	1°01'50
	1762 Jul 18 18:32	0°♄			1767 Oct 01 14:08	0°♄	
	1762 Sep 08 13:48	0°♄		morning rise	1767 Oct 21 16:50	13°♄05'39	
	1762 Oct 21 09:34	0°♄			1767 Nov 16 07:35	0°♄	
	1762 Nov 30 01:51	0°♄			1767 Dec 30 17:58	0°♄	
	1763 Jan 07 17:09	0°♄		desc. node	1768 Jan 21 15:14	15°♄06'01	
	1763 Feb 15 15:02	0°♄			1768 Feb 11 22:47	0°♄	
	1763 Mar 27 18:00	0°♄			1768 Mar 25 04:12	0°♄	
asc. node	1763 Mar 31 17:56	2°♄55'15			1768 May 06 01:34	0°♄	
evening set	1763 Apr 28 10:43	22°♄48'42			1768 Jun 18 06:40	0°♄	
	1763 May 08 16:10	0°♄			1768 Aug 08 10:44	0°♄	
	1763 Jun 21 14:08	0°♄		retrograde	1768 Sep 20 13:07	11°♄25'12	
conjunction	1763 Jun 22 07:09	0°♄28'26	0°45'54	min. Earth dist.	1768 Oct 18 02:53	6°♄13'47	0.44784 AU
minimum elong	1763 Jun 22 05:32	0°♄25'43	0°45'54	opposition	1768 Oct 26 07:32	3°♄25'54	-1°-27'-44
max. Earth dist.	1763 Jul 13 22:12	14°♄47'12	2.61098 AU	greatest brilliancy	1768 Oct 25 16:11	3°♄39'03	-2.4m
	1763 Aug 06 07:47	0°♄			1768 Nov 06 04:35	30°♄	
morning rise	1763 Aug 11 01:40	3°♄03'21		asc. node	1768 Nov 20 14:25	27°♄16'25	
	1763 Sep 22 12:12	0°♄		direct	1768 Nov 27 13:58	26°♄56'51	
	1763 Nov 09 23:28	0°♄			1768 Dec 20 03:41	0°♄	
	1763 Dec 30 11:34	0°♄			1769 Feb 26 11:40	0°♄	
	1764 Feb 25 04:48	0°♄			1769 Apr 19 21:27	0°♄	
desc. node	1764 Apr 17 16:51	17°♄11'51			1769 Jun 08 18:45	0°♄	
retrograde	1764 Apr 28 19:01	17°♄15'55'50		evening set	1769 Jul 27 08:04	0°♄	
opposition	1764 Jun 01 12:50	11°♄22'04	-2°-20'-8		1769 Aug 28 16:29	20°♄30'24	
greatest brilliancy	1764 Jun 02 14:05	11°♄01'00	-2.3m	max. Earth dist.	1769 Sep 12 09:26	0°♄	
min. Earth dist.	1764 Jun 09 22:26	8°♄34'53	0.46660 AU		1769 Sep 22 14:38	6°♄39'52	2.61904 AU
direct	1764 Jul 08 11:02	3°♄20'07		conjunction	1769 Oct 13 16:44	20°♄37'15	0°31'20
	1764 Sep 18 14:36	0°♄		minimum elong	1769 Oct 13 17:44	20°♄38'55	0°31'19
	1764 Nov 02 11:55	0°♄			1769 Oct 27 15:13	0°♄	
	1764 Dec 13 14:19	0°♄		morning rise	1769 Nov 29 11:58	22°♄38'38	
	1765 Jan 23 05:34	0°♄		desc. node	1769 Dec 08 14:00	29°♄02'13	
asc. node	1765 Feb 15 16:14	17°♄02'54			1769 Dec 09 22:41	0°♄	
	1765 Mar 05 18:40	0°♄			1770 Jan 20 11:56	0°♄	
	1765 Apr 17 21:31	0°♄			1770 Mar 01 16:05	0°♄	
	1765 Jun 01 17:13	0°♄			1770 Apr 10 01:35	0°♄	
evening set	1765 Jun 14 02:37	8°♄07'04			1770 May 19 13:03	0°♄	
	1765 Jul 17 22:25	0°♄			1770 Jun 29 10:14	0°♄	
conjunction	1765 Aug 01 11:46	9°♄19'28	1°08'05	asc. node	1770 Aug 13 07:06	0°♄	
minimum elong	1765 Aug 01 11:23	9°♄18'51	1°08'05		1770 Oct 08 14:03	27°♄56'41	
max. Earth dist.	1765 Aug 07 00:22	12°♄51'10	2.66799 AU	retrograde	1770 Oct 15 14:46	0°♄	
	1765 Sep 02 22:32	0°♄			1770 Nov 05 19:07	2°♄52'51	
morning rise	1765 Sep 15 20:45	8°♄13'02		min. Earth dist.	1770 Nov 25 19:00	30°♄	
	1765 Oct 20 02:50	0°♄		opposition	1770 Dec 08 18:42	25°♄33'03	0.57591 AU
	1765 Dec 06 03:45	0°♄		greatest brilliancy	1770 Dec 14 23:19	23°♄07'18	2°53'13
	1766 Jan 22 04:18	0°♄		direct	1770 Dec 14 00:17	23°♄29'56	-1.7m
desc. node	1766 Mar 05 16:17	26°♄45'30			1771 Jan 20 14:27	14°♄44'43	
	1766 Mar 10 21:56	0°♄			1771 Mar 19 08:44	0°♄	
	1766 Apr 30 21:14	0°♄			1771 May 17 08:04	0°♄	
retrograde	1766 Jul 14 09:55	25°♄40'02			1771 Jul 07 18:18	0°♄	
opposition	1766 Aug 13 13:44	20°♄41'29	-6°-52'-6	evening set	1771 Aug 24 19:41	0°♄	
greatest brilliancy	1766 Aug 13 19:09	20°♄37'55	-2.9m		1771 Oct 07 03:09	28°♄37'55	
min. Earth dist.	1766 Aug 13 22:52	20°♄35'28	0.37326 AU	max. Earth dist.	1771 Oct 09 03:23	0°♄	
direct	1766 Sep 12 09:25	15°♄42'50		desc. node	1771 Oct 22 19:22	9°♄23'39	2.51844 AU
	1766 Nov 02 04:18	0°♄			1771 Oct 26 12:42	11°♄58'50	
	1766 Dec 24 12:34	0°♄			1771 Nov 20 23:31	0°♄	
asc. node	1767 Jan 03 14:20	6°♄22'11		conjunction	1771 Nov 26 02:10	3°♄41'09	0°-18'-23
	1767 Feb 09 03:47	0°♄		minimum elong	1771 Nov 26 01:18	3°♄39'35	0°18'23
	1767 Mar 27 07:04	0°♄			1771 Dec 31 17:39	0°♄	
	1767 May 13 00:33	0°♄		morning rise	1772 Jan 20 00:56	14°♄38'31	

	1772 Feb 08 23:44	0°♊		min. Earth dist.	1777 Apr 04 14:47	7°♊58'58	0.62781 AU
	1772 Mar 18 11:28	0°♋		direct	1777 May 10 15:42	0°♊01'23	
	1772 Apr 26 01:05	0°♌		desc. node	1777 Jun 17 10:04	7°♊40'39	
	1772 Jun 04 15:22	0°♍			1777 Aug 02 13:59	0°♋	
	1772 Jul 16 09:33	0°♎			1777 Sep 18 17:45	0°♌	
asc. node	1772 Aug 25 12:14	26°♎31'21			1777 Oct 30 09:23	0°♍	
	1772 Aug 31 02:52	0°♏			1777 Dec 08 13:30	0°♊	
	1772 Oct 26 13:23	0°♐			1778 Jan 15 20:46	0°♋	
retrograde	1772 Dec 11 14:08	11°♐02'25			1778 Feb 23 11:26	0°♌	
min. Earth dist.	1773 Jan 18 06:56	2°♐06'13	0.65801 AU		1778 Apr 04 07:05	0°♍	
opposition	1773 Jan 20 18:03	1°♐06'53	4°25'26	evening set	1778 Apr 05 23:03	1°♌13'41	
greatest brilliancy	1773 Jan 20 04:37	1°♐20'22	-1.3m	asc. node	1778 Apr 17 08:50	9°♌34'28	
	1773 Jan 23 12:59	30°♑♏			1778 May 15 22:20	0°♎	
direct	1773 Mar 01 07:12	21°♏41'53					
	1773 Apr 11 08:58	0°♐		conjunction	1778 Jun 03 16:47	13°♎03'45	0°28'32
	1773 Jun 14 00:13	0°♑		minimum elong	1778 Jun 03 15:19	13°♎01'15	0°28'31
	1773 Aug 03 22:37	0°♒			1778 Jun 28 14:57	0°♏	
desc. node	1773 Sep 12 11:18	25°♒32'34		max. Earth dist.	1778 Jul 02 19:49	2°♏48'50	2.57430 AU
	1773 Sep 19 02:18	0°♓		morning rise	1778 Jul 26 10:33	18°♏25'00	
	1773 Oct 31 22:54	0°♑			1778 Aug 13 07:04	0°♐	
evening set	1773 Nov 23 10:19	16°♑29'54			1778 Sep 29 17:48	0°♑	
	1773 Dec 11 08:55	0°♒			1778 Nov 18 04:46	0°♒	
max. Earth dist.	1773 Dec 18 08:29	5°♒19'38	2.39162 AU		1779 Jan 10 18:56	0°♓	
	1774 Jan 19 04:17	0°♊		retrograde	1779 Apr 07 00:17	28°♓47'30	
				desc. node	1779 May 05 08:20	23°♓52'17	
conjunction	1774 Jan 22 07:49	2°♊28'03	-1°-2'-50	opposition	1779 May 12 10:09	21°♓27'01	0°-20'-26
minimum elong	1774 Jan 22 06:29	2°♊25'26	1°02'50	greatest brilliancy	1779 May 11 06:44	21°♓51'19	-2.0m
	1774 Feb 26 06:20	0°♋		min. Earth dist.	1779 May 20 14:10	18°♓32'39	0.51952 AU
morning rise	1774 Apr 01 15:03	26°♋58'05		direct	1779 Jun 20 09:30	12°♓27'48	
	1774 Apr 05 12:39	0°♌			1779 Aug 16 18:00	0°♑	
	1774 May 14 20:03	0°♍			1779 Oct 04 06:50	0°♒	
	1774 Jun 24 23:52	0°♎			1779 Nov 14 19:41	0°♊	
asc. node	1774 Jul 13 11:47	12°♎55'46			1779 Dec 24 11:17	0°♋	
	1774 Aug 07 18:49	0°♏			1780 Feb 02 03:40	0°♌	
	1774 Sep 24 11:13	0°♐		asc. node	1780 Mar 04 08:38	23°♌02'55	
	1774 Nov 20 01:48	0°♑			1780 Mar 13 22:47	0°♍	
retrograde	1775 Jan 14 23:58	14°♑38'13			1780 Apr 25 11:08	0°♎	
opposition	1775 Feb 23 20:57	5°♑07'51	4°21'26	evening set	1780 May 27 22:54	22°♎04'59	
greatest brilliancy	1775 Feb 24 02:44	5°♑02'06	-1.2m		1780 Jun 08 20:00	0°♏	
min. Earth dist.	1775 Feb 25 07:04	4°♑33'58	0.67588 AU				
	1775 Mar 09 11:31	30°♒♐		conjunction	1780 Jul 17 07:59	25°♏11'22	1°03'11
direct	1775 Apr 06 00:35	25°♐11'09		minimum elong	1780 Jul 17 07:00	25°♏09'45	1°03'11
	1775 May 06 04:09	0°♑			1780 Jul 24 18:55	0°♐	
	1775 Jul 11 08:52	0°♒		max. Earth dist.	1780 Jul 28 18:25	2°♐33'40	2.65216 AU
desc. node	1775 Jul 31 10:39	11°♒43'50		morning rise	1780 Sep 01 23:04	25°♐02'24	
	1775 Aug 29 09:50	0°♓			1780 Sep 09 18:41	0°♑	
	1775 Oct 12 01:44	0°♑			1780 Oct 27 07:24	0°♒	
	1775 Nov 21 14:38	0°♒			1780 Dec 14 06:41	0°♓	
	1775 Dec 30 07:43	0°♊			1781 Feb 01 08:28	0°♋	
evening set	1776 Jan 27 16:55	22°♊24'09		desc. node	1781 Mar 22 07:16	27°♋56'34	
	1776 Feb 06 07:35	0°♋			1781 Mar 26 04:45	0°♌	
	1776 Mar 15 14:03	0°♌		retrograde	1781 Jun 12 00:33	25°♌52'18	
				opposition	1781 Jul 12 18:49	20°♌37'00	-5°-51'-49
conjunction	1776 Apr 04 15:40	15°♌25'16	0°-34'-51	greatest brilliancy	1781 Jul 14 05:05	20°♌12'44	-2.7m
minimum elong	1776 Apr 04 18:24	15°♌30'28	0°34'51	min. Earth dist.	1781 Jul 18 04:42	19°♌05'17	0.39474 AU
	1776 Apr 23 23:49	0°♍		direct	1781 Aug 14 04:56	14°♌41'01	
max. Earth dist.	1776 May 24 07:52	22°♍13'40	2.44939 AU		1781 Oct 04 19:57	0°♎	
asc. node	1776 May 30 10:44	26°♍36'44			1781 Nov 23 13:35	0°♏	
	1776 Jun 04 05:01	0°♎			1782 Jan 06 16:13	0°♑	
morning rise	1776 Jun 08 04:08	2°♎48'18		asc. node	1782 Jan 20 08:00	9°♑25'15	
	1776 Jul 17 15:51	0°♏			1782 Feb 19 07:15	0°♒	
	1776 Sep 01 15:42	0°♐			1782 Apr 04 19:44	0°♓	
	1776 Oct 20 21:24	0°♑			1782 May 20 14:08	0°♏	
	1776 Dec 16 02:55	0°♒			1782 Jul 06 08:54	0°♐	
retrograde	1777 Feb 19 23:12	18°♒42'21		evening set	1782 Jul 08 19:06	1°♐32'41	
opposition	1777 Mar 30 09:17	9°♒59'54	2°56'11	max. Earth dist.	1782 Aug 21 02:25	29°♐04'41	2.67587 AU
greatest brilliancy	1777 Mar 31 03:43	9°♒42'09	-1.4m		1782 Aug 22 13:12	0°♑	

conjunction	1782 Aug 24 04:37	1° \cap 02'42	1°07'19	asc. node	1787 Sep 12 05:22	29° \cap 56'28	
minimum elong	1782 Aug 24 05:05	1° \cap 03'28	1°07'19		1787 Sep 12 07:52	0° \ominus	
morning rise	1782 Oct 07 14:27	29° \cap 27'36		retrograde	1787 Nov 28 21:00	27° \ominus 16'05	
	1782 Oct 08 10:34	0° $\underline{\cap}$		min. Earth dist.	1788 Jan 03 20:27	18° \ominus 53'56	0.63314 AU
	1782 Nov 23 13:22	0° \cap		opposition	1788 Jan 07 19:56	17° \ominus 18'22	4°03'39
	1783 Jan 07 17:41	0° \nearrow		greatest brilliancy	1788 Jan 07 00:16	17° \ominus 38'04	-1.4m
desc. node	1783 Feb 07 07:00	20° \nearrow 36'49		direct	1788 Feb 15 09:14	8° \ominus 13'32	
	1783 Feb 21 02:26	0° $\overline{\cap}$			1788 Apr 28 02:43	0° \cap	
	1783 Apr 06 00:25	0° \approx			1788 Jun 23 04:35	0° \cap	
	1783 May 20 15:29	0° \times			1788 Aug 11 15:31	0° $\underline{\cap}$	
	1783 Jul 09 23:33	0° γ			1788 Sep 26 09:01	0° \cap	
retrograde	1783 Aug 29 05:01	14° γ 45'53		desc. node	1788 Sep 29 03:48	1° \cap 53'38	
min. Earth dist.	1783 Sep 24 19:54	10° γ 12'13	0.40191 AU	evening set	1788 Nov 02 23:21	26° \cap 15'14	
greatest brilliancy	1783 Sep 30 07:19	8° γ 32'03	-2.7m		1788 Nov 08 04:18	0° \nearrow	
opposition	1783 Oct 01 12:00	8° γ 10'05	-4°-6'-9	max. Earth dist.	1788 Nov 18 11:41	7° \nearrow 29'32	2.43997 AU
direct	1783 Oct 31 22:15	2° γ 37'01			1788 Dec 18 16:38	0° $\overline{\cap}$	
asc. node	1783 Dec 08 06:23	10° γ 29'05					
	1784 Jan 18 13:04	0° \times		conjunction	1788 Dec 28 04:03	7° $\overline{\cap}$ 12'46	0°-49'-56
	1784 Mar 10 11:16	0° \cap		minimum elong	1788 Dec 28 01:51	7° $\overline{\cap}$ 08'35	0°49'56
	1784 Apr 28 17:05	0° \ominus			1789 Jan 26 15:16	0° \approx	
	1784 Jun 16 07:28	0° \cap		morning rise	1789 Mar 02 04:54	27° \approx 08'33	
	1784 Aug 03 07:13	0° \cap			1789 Mar 05 20:02	0° \times	
evening set	1784 Aug 14 05:54	6° \cap 55'33			1789 Apr 13 04:01	0° γ	
max. Earth dist.	1784 Sep 12 17:42	25° \cap 48'33	2.64544 AU		1789 May 22 12:25	0° \times	
	1784 Sep 19 04:55	0° $\underline{\cap}$			1789 Jul 02 18:37	0° \cap	
				asc. node	1789 Jul 30 03:04	18° \cap 51'24	
conjunction	1784 Sep 28 19:08	6° $\underline{\cap}$ 15'03	0°45'49		1789 Aug 15 23:28	0° \ominus	
minimum elong	1784 Sep 28 20:17	6° $\underline{\cap}$ 16'56	0°45'48		1789 Oct 04 06:18	0° \cap	
	1784 Nov 03 13:59	0° \cap			1789 Dec 14 06:22	0° \cap	
morning rise	1784 Nov 13 04:10	6° \cap 29'24		retrograde	1790 Jan 01 14:39	1° \cap 57'54	
	1784 Dec 17 06:04	0° \nearrow			1790 Jan 18 19:49	30° \cap	
desc. node	1784 Dec 25 05:34	5° \nearrow 36'27		opposition	1790 Feb 10 17:15	22° \cap 14'59	4°32'22
	1785 Jan 28 07:43	0° $\overline{\cap}$		greatest brilliancy	1790 Feb 10 15:28	22° \cap 16'45	-1.2m
	1785 Mar 10 02:14	0° \approx		min. Earth dist.	1790 Feb 10 14:38	22° \cap 17'35	0.67684 AU
	1785 Apr 19 03:00	0° \times		direct	1790 Mar 23 09:29	12° \cap 27'40	
	1785 May 29 08:55	0° γ			1790 May 25 20:43	0° \cap	
	1785 Jul 10 15:12	0° \times			1790 Jul 21 00:05	0° $\underline{\cap}$	
	1785 Aug 29 07:20	0° \cap		desc. node	1790 Aug 17 02:37	16° $\underline{\cap}$ 42'08	
retrograde	1785 Oct 20 12:08	15° \cap 20'35			1790 Sep 06 12:24	0° \cap	
asc. node	1785 Oct 25 05:41	15° \cap 10'43			1790 Oct 19 18:09	0° \nearrow	
min. Earth dist.	1785 Nov 20 07:50	8° \cap 48'27	0.52885 AU		1790 Nov 29 04:50	0° $\overline{\cap}$	
opposition	1785 Nov 27 18:02	5° \cap 59'10	1°38'06	evening set	1790 Dec 31 01:23	24° $\overline{\cap}$ 37'19	
greatest brilliancy	1785 Nov 27 00:59	6° \cap 15'25	-2.0m		1791 Jan 06 21:57	0° \approx	
	1785 Dec 16 15:20	30° \cap			1791 Feb 13 21:39	0° \times	
direct	1786 Jan 01 20:47	28° \times 13'23					
	1786 Jan 19 01:44	0° \cap		conjunction	1791 Mar 08 00:47	17° \times 26'20	0°-56'-18
	1786 Apr 02 16:49	0° \ominus		minimum elong	1791 Mar 08 03:40	17° \times 32'00	0°56'17
	1786 May 26 08:07	0° \cap			1791 Mar 24 02:56	0° γ	
	1786 Jul 15 07:17	0° \cap		max. Earth dist.	1791 Apr 26 08:21	25° γ 25'59	2.39607 AU
	1786 Aug 31 20:41	0° $\underline{\cap}$			1791 May 02 10:23	0° \times	
evening set	1786 Sep 21 03:56	13° $\underline{\cap}$ 16'24		morning rise	1791 May 16 07:18	10° \times 17'31	
max. Earth dist.	1786 Oct 09 21:25	25° $\underline{\cap}$ 47'29	2.56293 AU		1791 Jun 12 13:10	0° \cap	
	1786 Oct 16 02:23	0° \cap		asc. node	1791 Jun 17 02:11	3° \cap 13'05	
					1791 Jul 26 00:19	0° \ominus	
conjunction	1786 Nov 08 00:40	15° \cap 49'00	0°02'31		1791 Sep 10 09:01	0° \cap	
minimum elong	1786 Nov 08 00:45	15° \cap 49'10	0°02'31		1791 Oct 31 03:30	0° \cap	
behind sun begin	1786 Nov 07 04:15	15° \cap 13'22			1792 Jan 05 04:09	0° $\underline{\cap}$	
behind sun end	1786 Nov 08 21:16	16° \cap 25'01		retrograde	1792 Feb 05 23:35	5° $\underline{\cap}$ 19'07	
desc. node	1786 Nov 12 04:12	18° \cap 43'23			1792 Mar 06 01:52	30° \cap	
	1786 Nov 28 01:53	0° \nearrow		opposition	1792 Mar 16 02:51	26° \cap 14'56	3°39'35
morning rise	1786 Dec 28 20:07	22° \nearrow 22'43		greatest brilliancy	1792 Mar 16 18:10	25° \cap 59'57	-1.3m
	1787 Jan 08 02:22	0° $\overline{\cap}$		min. Earth dist.	1792 Mar 19 21:02	24° \cap 46'42	0.65440 AU
	1787 Feb 16 15:43	0° \approx		direct	1792 Apr 26 13:03	16° \cap 12'39	
	1787 Mar 27 10:09	0° \times			1792 Jun 19 03:31	0° $\underline{\cap}$	
	1787 May 05 05:45	0° γ		desc. node	1792 Jul 04 00:58	7° $\underline{\cap}$ 04'17	
	1787 Jun 14 03:02	0° \times			1792 Aug 13 11:49	0° \cap	
	1787 Jul 26 12:01	0° \cap			1792 Sep 27 16:16	0° \nearrow	

	1792 Nov 07 17:26	0°☾		conjunction	1797 Aug 09 21:13	17°♊37'18	1°08'59
	1792 Dec 16 15:23	0°♊		minimum elong	1797 Aug 09 21:10	17°♊37'13	1°08'59
	1793 Jan 23 18:18	0°♋		max. Earth dist.	1797 Aug 12 06:26	19°♊08'24	2.67311 AU
	1793 Mar 03 04:22	0°♌			1797 Aug 29 07:51	0°♍	
evening set	1793 Mar 11 11:32	6°♌22'55		morning rise	1797 Sep 23 18:48	16°♍12'40	
	1793 Apr 11 18:39	0°♍			1797 Oct 15 09:02	0°♎	
asc. node	1793 May 04 02:18	16°♍21'14			1797 Dec 01 00:36	0°♏	
					1798 Jan 16 06:05	0°♐	
conjunction	1793 May 13 15:09	23°♍12'45	0°06'05	desc. node	1798 Feb 23 21:52	25°♐07'59	
minimum elong	1793 May 13 14:44	23°♍12'00	0°06'06		1798 Mar 03 10:19	0°♑	
behind sun begin	1793 May 12 15:21	22°♍30'11			1798 Apr 19 14:46	0°♒	
behind sun end	1793 May 14 14:07	23°♍53'47			1798 Jun 11 18:44	0°♋	
	1793 May 23 04:16	0°♌		retrograde	1798 Aug 01 06:43	14°♋01'01	
max. Earth dist.	1793 Jun 20 03:58	19°♌27'49	2.52967 AU	min. Earth dist.	1798 Aug 29 09:00	9°♋25'15	0.37535 AU
	1793 Jul 05 16:47	0°♍		opposition	1798 Aug 31 23:48	8°♋42'51	-6°-22'-53
morning rise	1793 Jul 09 08:08	2°♍26'36		greatest brilliancy	1798 Aug 31 10:34	8°♋51'48	-2.9m
	1793 Aug 20 09:04	0°♎		direct	1798 Sep 30 11:46	3°♋46'58	
	1793 Oct 07 06:14	0°♏			1798 Dec 13 21:39	0°♌	
	1793 Nov 27 06:00	0°♐		asc. node	1798 Dec 24 22:46	6°♌17'55	
	1794 Jan 26 08:14	0°♑			1799 Feb 01 23:09	0°♍	
retrograde	1794 Mar 18 10:45	12°♑11'21			1799 Mar 21 10:50	0°♎	
opposition	1794 Apr 24 06:03	4°♑13'23	1°12'49		1799 May 07 20:55	0°♏	
greatest brilliancy	1794 Apr 24 18:34	4°♑01'46	-1.7m		1799 Jun 24 13:49	0°♐	
min. Earth dist.	1794 May 01 11:53	1°♑32'02	0.56776 AU	evening set	1799 Jul 31 21:03	23°♑29'17	
	1794 May 05 19:48	30°♒♎			1799 Aug 11 03:57	0°♑	
desc. node	1794 May 21 23:52	25°♒43'46		max. Earth dist.	1799 Sep 04 06:29	15°♑21'13	2.66384 AU
direct	1794 Jun 03 12:21	24°♒39'36					
	1794 Jul 03 15:50	0°♑		conjunction	1799 Sep 15 09:47	22°♑30'15	0°56'58
	1794 Sep 01 05:32	0°♒		minimum elong	1799 Sep 15 10:50	22°♑31'56	0°56'58
	1794 Oct 15 07:19	0°♑			1799 Sep 27 00:15	0°♒	
	1794 Nov 24 11:10	0°♒		morning rise	1799 Oct 29 23:54	21°♒36'33	
	1795 Jan 02 08:53	0°♋			1799 Nov 11 14:32	0°♑	
	1795 Feb 10 11:44	0°♌			1799 Dec 25 17:48	0°♒	
asc. node	1795 Mar 22 01:02	29°♌27'11		desc. node	1800 Jan 11 21:54	11°♒56'30	
	1795 Mar 22 19:00	0°♍			1800 Feb 06 11:32	0°♑	
	1795 May 03 20:51	0°♌			1800 Mar 20 01:58	0°♒	
evening set	1795 May 10 01:57	4°♌18'49			1800 Apr 30 02:32	0°♋	
	1795 Jun 16 21:32	0°♍			1800 Jun 10 18:54	0°♌	
					1800 Jul 26 10:32	0°♍	
conjunction	1795 Jul 02 03:08	10°♍06'00	0°53'39	retrograde	1800 Oct 03 05:09	25°♍01'51	
minimum elong	1795 Jul 02 01:39	10°♍03'33	0°53'37	min. Earth dist.	1800 Oct 31 20:17	19°♍21'46	0.47706 AU
max. Earth dist.	1795 Jul 19 21:06	21°♍43'08	2.62787 AU	opposition	1800 Nov 09 00:55	16°♍25'39	0°-9'-22
	1795 Aug 01 15:54	0°♎		greatest brilliancy	1801 Feb 13 12:25	27°♍52'30	-3.2m
morning rise	1795 Aug 19 14:21	11°♎30'57		asc. node	1800 Nov 11 21:23	15°♍24'49	
	1795 Sep 17 17:23	0°♏		direct	1800 Dec 12 10:11	9°♍26'15	
	1795 Nov 04 18:33	0°♐			1801 Feb 17 22:44	0°♌	
	1795 Dec 24 03:03	0°♑			1801 Apr 14 15:18	0°♍	
	1796 Feb 14 21:02	0°♒			1801 Jun 04 13:33	0°♎	
desc. node	1796 Apr 07 22:44	24°♒02'57			1801 Jul 23 13:19	0°♏	
	1796 May 02 20:53	0°♑		evening set	1801 Sep 07 01:13	28°♏52'31	
retrograde	1796 May 13 09:16	0°♑39'35			1801 Sep 08 18:53	0°♒	
	1796 May 23 17:03	30°♒♎		max. Earth dist.	1801 Sep 29 15:36	13°♒39'40	2.60133 AU
opposition	1796 Jun 15 02:15	24°♒34'42	-3°-38'-1				
greatest brilliancy	1796 Jun 16 12:51	24°♒07'20	-2.4m	conjunction	1801 Oct 23 12:53	29°♒39'34	0°21'33
min. Earth dist.	1796 Jun 23 02:26	22°♒03'46	0.43830 AU	minimum elong	1801 Oct 23 13:39	29°♒40'52	0°21'32
direct	1796 Jul 20 13:48	17°♒14'28			1801 Oct 24 00:57	0°♑	
	1796 Sep 05 01:52	0°♑		desc. node	1801 Nov 29 20:33	25°♑28'27	
	1796 Oct 25 05:02	0°♒			1801 Dec 06 05:56	0°♒	
	1796 Dec 06 19:45	0°♋		morning rise	1801 Dec 10 11:12	3°♒00'15	
	1797 Jan 17 06:09	0°♌			1802 Jan 16 14:41	0°♑	
asc. node	1797 Feb 05 23:24	14°♌09'42			1802 Feb 25 13:16	0°♒	
	1797 Feb 28 08:02	0°♍			1802 Apr 05 16:23	0°♋	
	1797 Apr 12 19:53	0°♌			1802 May 14 20:27	0°♌	
	1797 May 27 21:58	0°♍			1802 Jun 24 05:29	0°♍	
evening set	1797 Jun 23 08:21	17°♍10'42			1802 Aug 06 18:29	0°♌	
	1797 Jul 13 06:57	0°♎			1802 Sep 28 18:41	0°♍	
				asc. node	1802 Sep 29 20:13	0°♍28'50	

retrograde	1802 Nov 15 12:05	12° $\overline{5}$ 28'58		greatest brilliancy	1808 Jan 28 07:09	25° \approx 55'19	1.2m
min. Earth dist.	1802 Dec 19 14:37	4° $\overline{5}$ 45'20	0.59883 AU		1808 Feb 02 11:02	0° H	
greatest brilliancy	1802 Dec 24 01:49	2° $\overline{5}$ 59'06	-1.6m	evening set	1808 Feb 13 17:36	8° H 53'17	
opposition	1802 Dec 25 01:03	2° $\overline{5}$ 36'00	3°25'17		1808 Mar 11 17:58	0° Y	
	1802 Dec 31 19:05	30° R $\overline{\text{II}}$					
direct	1803 Jan 31 09:45	23° $\overline{\text{II}}$ 56'33		conjunction	1808 Apr 20 15:10	0° B 20'04	0°-19'-55
	1803 Mar 06 10:29	0° $\overline{5}$		minimum elong	1808 Apr 20 16:46	0° B 23'02	0°19'55
	1803 May 11 18:31	0° Q			1808 Apr 20 04:24	0° B	
	1803 Jul 03 11:45	0° M		asc. node	1808 May 21 17:40	23° B 05'27	
	1803 Aug 21 00:03	0° $\underline{5}$			1808 May 31 09:58	0° $\overline{\text{II}}$	
	1803 Oct 05 11:24	0° M		max. Earth dist.	1808 Jun 05 15:00	3° $\overline{\text{II}}$ 41'02	2.47917 AU
evening set	1803 Oct 17 18:21	8° M 25'54		morning rise	1808 Jun 21 05:05	14° $\overline{\text{II}}$ 33'57	
desc. node	1803 Oct 17 18:52	8° M 26'47			1808 Jul 13 20:10	0° $\overline{5}$	
max. Earth dist.	1803 Nov 01 13:53	18° M 46'50	2.49152 AU		1808 Aug 28 15:23	0° Q	
	1803 Nov 17 07:41	0° J			1808 Oct 16 05:27	0° M	
					1808 Dec 08 19:19	0° $\underline{5}$	
conjunction	1803 Dec 08 06:24	15° J 16'17	0°-30'-31	retrograde	1809 Mar 02 03:32	27° $\underline{5}$ 14'21	
minimum elong	1803 Dec 08 04:56	15° J 13'34	0°30'31	opposition	1809 Apr 09 01:10	18° $\underline{5}$ 46'08	2°23'26
	1803 Dec 28 00:10	0° $\overline{5}$		greatest brilliancy	1809 Apr 09 19:15	18° $\underline{5}$ 28'53	-1.5m
morning rise	1804 Feb 04 03:14	29° $\overline{5}$ 12'10		min. Earth dist.	1809 Apr 15 00:34	16° $\underline{5}$ 29'21	0.60882 AU
	1804 Feb 05 03:53	0° \approx		direct	1809 May 20 01:25	8° $\underline{5}$ 53'27	
	1804 Mar 14 12:59	0° H		desc. node	1809 Jun 08 15:06	11° $\underline{5}$ 10'50	
	1804 Apr 22 00:01	0° Y			1809 Jul 26 01:08	0° M	
	1804 May 31 11:00	0° B			1809 Sep 13 12:11	0° J	
	1804 Jul 11 22:19	0° $\overline{\text{II}}$			1809 Oct 25 19:32	0° $\overline{5}$	
asc. node	1804 Aug 16 20:08	24° $\overline{\text{II}}$ 13'41			1809 Dec 04 06:42	0° \approx	
	1804 Aug 25 20:40	0° $\overline{5}$			1810 Jan 11 18:04	0° H	
	1804 Oct 17 07:10	0° Q			1810 Feb 19 11:54	0° Y	
retrograde	1804 Dec 20 07:35	19° Q 06'10			1810 Mar 31 10:26	0° B	
min. Earth dist.	1805 Jan 27 20:38	9° Q 53'21	0.66747 AU	asc. node	1810 Apr 08 17:23	6° B 04'25	
opposition	1805 Jan 29 11:59	9° Q 13'53	4°31'43	evening set	1810 Apr 20 00:39	14° B 15'44	
greatest brilliancy	1805 Jan 29 02:29	9° Q 23'25	-1.3m		1810 May 12 04:00	0° $\overline{\text{II}}$	
	1805 Mar 03 05:32	30° R $\overline{5}$					
direct	1805 Mar 10 11:55	29° $\overline{5}$ 39'52		conjunction	1810 Jun 15 12:41	23° $\overline{\text{II}}$ 40'17	0°39'11
	1805 Mar 18 00:38	0° Q		minimum elong	1810 Jun 15 11:03	23° $\overline{\text{II}}$ 37'31	0°39'09
	1805 Jun 08 05:37	0° M			1810 Jun 24 22:15	0° $\overline{5}$	
	1805 Jul 30 14:08	0° $\underline{5}$		max. Earth dist.	1810 Jul 10 09:38	10° $\overline{5}$ 18'03	2.59549 AU
desc. node	1805 Sep 03 17:53	22° $\underline{5}$ 23'05		morning rise	1810 Aug 05 12:21	27° $\overline{5}$ 22'29	
	1805 Sep 15 04:26	0° M			1810 Aug 09 13:52	0° Q	
	1805 Oct 28 04:23	0° J			1810 Sep 25 19:51	0° M	
evening set	1805 Dec 07 04:29	29° J 40'26			1810 Nov 13 15:31	0° $\underline{5}$	
	1805 Dec 07 14:47	0° $\overline{5}$			1811 Jan 04 04:47	0° M	
	1806 Jan 15 09:26	0° \approx			1811 Mar 06 21:10	0° J	
max. Earth dist.	1806 Jan 23 02:06	6° \approx 02'46	2.37287 AU	retrograde	1811 Apr 20 10:13	9° J 44'34	
				desc. node	1811 Apr 26 14:28	9° J 30'10	
conjunction	1806 Feb 07 22:02	18° \approx 31'48	-1°-4'-51	opposition	1811 May 24 23:16	2° J 48'49	-1°-25'-47
minimum elong	1806 Feb 07 22:11	18° \approx 32'06	1°04'51	greatest brilliancy	1811 May 25 15:35	2° J 34'44	-2.1m
	1806 Feb 22 10:25	0° H		min. Earth dist.	1811 Jun 02 09:46	29° M 55'02	0.49034 AU
	1806 Apr 01 15:56	0° Y			1811 Jun 02 03:49	30° R M	
morning rise	1806 Apr 19 13:41	13° Y 48'47		direct	1811 Jul 01 21:37	24° M 18'26	
	1806 May 10 22:40	0° B			1811 Aug 01 04:07	0° J	
	1806 Jun 21 00:50	0° $\overline{\text{II}}$			1811 Sep 27 00:33	0° $\overline{5}$	
asc. node	1806 Jul 04 19:15	9° $\overline{\text{II}}$ 41'05			1811 Nov 09 02:41	0° \approx	
	1806 Aug 03 15:00	0° $\overline{5}$			1811 Dec 19 11:11	0° H	
	1806 Sep 19 15:12	0° Q			1812 Jan 28 14:27	0° Y	
	1806 Nov 12 03:46	0° M		asc. node	1812 Feb 24 15:59	19° Y 51'05	
retrograde	1807 Jan 23 20:56	22° M 24'57			1812 Mar 09 18:00	0° B	
opposition	1807 Mar 04 12:25	13° M 02'56	4°09'27		1812 Apr 21 12:44	0° $\overline{\text{II}}$	
greatest brilliancy	1807 Mar 04 21:58	12° M 53'29	-1.2m		1812 Jun 05 02:22	0° $\overline{5}$	
min. Earth dist.	1807 Mar 06 18:13	12° M 09'42	0.67102 AU	evening set	1812 Jun 07 21:41	1° $\overline{5}$ 51'08	
direct	1807 Apr 14 19:42	3° M 02'58			1812 Jul 21 03:43	0° Q	
	1807 Jul 05 04:35	0° $\underline{5}$					
desc. node	1807 Jul 22 16:58	9° $\underline{5}$ 43'40		conjunction	1812 Jul 27 02:18	3° Q 49'01	1°06'33
	1807 Aug 24 19:41	0° M		minimum elong	1812 Jul 27 01:38	3° Q 47'58	1°06'33
	1807 Oct 07 23:00	0° J		max. Earth dist.	1812 Aug 04 04:43	9° Q 00'34	2.66199 AU
	1807 Nov 17 16:00	0° $\overline{5}$			1812 Sep 06 03:08	0° M	
	1807 Dec 26 10:39	0° \approx		morning rise	1812 Sep 10 22:57	3° M 03'54	

	1812 Oct 23 10:50	0°♄		direct	1818 Jan 13 18:14	8°♄18'44	
	1812 Dec 09 20:41	0°♍			1818 Mar 26 05:06	0°♄	
	1813 Jan 26 16:02	0°♎			1818 May 21 11:51	0°♄	
desc. node	1813 Mar 13 14:19	27°♎56'26			1818 Jul 11 06:34	0°♎	
	1813 Mar 17 02:25	0°♏			1818 Aug 28 03:41	0°♄	
	1813 May 12 19:03	0°♐		evening set	1818 Oct 01 03:27	22°♄20'19	
retrograde	1813 Jul 01 01:25	12°♐34'41			1818 Oct 12 11:38	0°♍	
opposition	1813 Jul 31 06:58	7°♐35'43	-6°-41'-17	max. Earth dist.	1818 Oct 18 02:45	3°♍50'31	2.53916 AU
greatest brilliancy	1813 Aug 01 03:55	7°♐21'36	-2.8m	desc. node	1818 Nov 03 10:29	15°♍08'12	
min. Earth dist.	1813 Aug 03 02:58	6°♐50'00	0.37908 AU				
direct	1813 Aug 31 01:06	2°♐18'34		conjunction	1818 Nov 19 01:14	26°♍09'09	0°-9'-24
	1813 Nov 13 16:56	0°♑		minimum elong	1818 Nov 19 00:49	26°♍08'23	0°09'25
	1813 Dec 31 00:49	0°♒		behind sun begin	1818 Nov 18 07:08	25°♍36'57	
asc. node	1814 Jan 11 13:51	7°♒39'12		behind sun end	1818 Nov 19 18:29	26°♍39'52	
	1814 Feb 14 01:19	0°♓			1818 Nov 24 10:28	0°♎	
	1814 Mar 31 08:25	0°♈			1819 Jan 04 08:12	0°♏	
	1814 May 16 14:16	0°♉		morning rise	1819 Jan 10 23:09	4°♏58'30	
	1814 Jul 02 15:35	0°♊			1819 Feb 12 18:02	0°♐	
evening set	1814 Jul 18 08:12	9°♊56'51			1819 Mar 23 08:39	0°♑	
	1814 Aug 18 22:50	0°♒			1819 May 01 00:14	0°♒	
max. Earth dist.	1814 Aug 27 07:02	5°♒18'30	2.67396 AU		1819 Jun 09 16:19	0°♓	
					1819 Jul 21 14:04	0°♈	
conjunction	1814 Sep 02 07:04	9°♒07'59	1°04'34	asc. node	1819 Sep 03 12:02	28°♈33'05	
minimum elong	1814 Sep 02 07:48	9°♒09'09	1°04'34		1819 Sep 05 21:45	0°♉	
	1814 Oct 04 19:33	0°♈			1819 Nov 06 03:39	0°♊	
morning rise	1814 Oct 16 14:52	7°♈38'50		retrograde	1819 Dec 07 19:35	5°♊43'31	
	1814 Nov 19 17:25	0°♉			1820 Jan 06 01:40	30°♊♄	
	1815 Jan 03 11:59	0°♊		min. Earth dist.	1820 Jan 13 18:13	27°♊02'08	0.64811 AU
desc. node	1815 Jan 29 13:12	17°♊48'19		opposition	1820 Jan 16 21:55	25°♊46'10	4°18'17
	1815 Feb 16 04:35	0°♋		greatest brilliancy	1820 Jan 16 05:24	26°♊02'45	-1.4m
	1815 Mar 31 02:02	0°♌		direct	1820 Feb 25 00:53	16°♊29'46	
	1815 May 12 21:56	0°♍			1820 Apr 19 11:42	0°♋	
	1815 Jun 27 00:25	0°♎			1820 Jun 18 05:40	0°♌	
	1815 Sep 02 11:34	0°♏			1820 Aug 07 13:21	0°♍	
retrograde	1815 Sep 12 22:23	0°♏46'43		desc. node	1820 Sep 20 09:20	28°♍31'11	
	1815 Sep 23 06:54	30°♏♒			1820 Sep 22 13:56	0°♍	
min. Earth dist.	1815 Oct 09 19:35	25°♒55'43	0.42566 AU		1820 Nov 04 11:24	0°♎	
opposition	1815 Oct 17 15:12	23°♒23'06	-2°-34'00	evening set	1820 Nov 15 06:12	7°♎50'23	
greatest brilliancy	1815 Oct 16 15:41	23°♒42'18	-2.6m	max. Earth dist.	1820 Dec 04 01:39	21°♎46'30	2.41232 AU
direct	1815 Nov 18 00:29	17°♒19'35			1820 Dec 14 23:27	0°♏	
asc. node	1815 Nov 29 13:43	18°♒10'17					
	1816 Jan 06 13:39	0°♓		conjunction	1821 Jan 11 22:23	21°♏28'25	0°-58'-28
	1816 Mar 04 05:04	0°♈		minimum elong	1821 Jan 11 20:24	21°♏24'34	0°58'28
	1816 Apr 24 00:28	0°♉			1821 Jan 22 20:57	0°♐	
	1816 Jun 12 07:01	0°♊			1821 Mar 02 00:16	0°♑	
	1816 Jul 30 14:25	0°♒		morning rise	1821 Mar 20 04:34	14°♑18'21	
evening set	1816 Aug 23 11:57	15°♒07'34			1821 Apr 09 06:44	0°♒	
	1816 Sep 15 14:53	0°♓			1821 May 18 13:34	0°♓	
max. Earth dist.	1816 Sep 19 09:09	2°♓26'41	2.63191 AU		1821 Jun 28 16:41	0°♈	
				asc. node	1821 Jul 21 10:58	15°♈50'44	
conjunction	1816 Oct 08 05:43	14°♓49'03	0°37'47		1821 Aug 11 13:23	0°♉	
minimum elong	1816 Oct 08 06:49	14°♓50'51	0°37'47		1821 Sep 28 16:33	0°♊	
	1816 Oct 30 22:54	0°♍			1821 Nov 27 08:34	0°♋	
morning rise	1816 Nov 23 07:14	15°♍56'38		retrograde	1822 Jan 10 07:05	9°♋43'11	
	1816 Dec 13 11:03	0°♎		opposition	1822 Feb 19 06:42	0°♋06'42	4°27'18
desc. node	1816 Dec 16 11:51	2°♎08'19		greatest brilliancy	1822 Feb 19 09:08	0°♋04'16	-1.2m
	1817 Jan 24 06:16	0°♏			1822 Feb 19 13:25	30°♋♌	
	1817 Mar 05 17:03	0°♐		min. Earth dist.	1822 Feb 20 00:06	29°♌49'21	0.67753 AU
	1817 Apr 14 08:48	0°♑		direct	1822 Apr 01 05:33	20°♌13'49	
	1817 May 24 02:54	0°♒			1822 May 16 02:50	0°♍	
	1817 Jul 04 10:30	0°♓			1822 Jul 15 20:38	0°♎	
	1817 Aug 19 14:23	0°♈		desc. node	1822 Aug 08 08:21	14°♎03'41	
asc. node	1817 Oct 16 13:48	24°♈38'40			1822 Sep 02 06:17	0°♏	
retrograde	1817 Oct 30 23:58	26°♈02'44			1822 Oct 15 19:09	0°♐	
min. Earth dist.	1817 Dec 02 00:56	19°♈03'24	0.55563 AU		1822 Nov 25 08:02	0°♑	
opposition	1817 Dec 08 19:23	16°♈25'48	2°25'06		1823 Jan 03 01:48	0°♒	
greatest brilliancy	1817 Dec 07 21:35	16°♈47'00	-1.8m	evening set	1823 Jan 16 10:08	10°♒30'50	

	1823 Feb 10 01:39	0°♂			1828 Feb 07 13:18	0°♂	
	1823 Mar 20 07:05	0°♀		desc. node	1828 Mar 30 05:03	27°♂25'27	
					1828 Apr 04 20:21	0°♂	
conjunction	1823 Mar 25 10:16	3°♀58'34	0°-45'-12	retrograde	1828 May 30 13:36	14°♂44'08	
minimum elong	1823 Mar 25 13:29	4°♀04'47	0°45'11	opposition	1828 Jul 01 02:16	9°♂08'21	-4°-56'-58
	1823 Apr 28 14:57	0°♂		greatest brilliancy	1828 Jul 02 16:29	8°♂39'54	-2.6m
max. Earth dist.	1823 May 15 15:21	12°♂36'03	2.42501 AU	min. Earth dist.	1828 Jul 07 23:42	7°♂05'41	0.41235 AU
morning rise	1823 May 31 06:09	23°♂56'10		direct	1828 Aug 03 22:49	2°♂34'40	
asc. node	1823 Jun 08 10:30	29°♂47'18			1828 Oct 15 18:43	0°≈	
	1823 Jun 08 17:39	0°♂			1828 Nov 30 05:03	0°♂	
	1823 Jul 22 02:53	0°♂			1829 Jan 11 20:43	0°♀	
	1823 Sep 06 04:12	0°♂		asc. node	1829 Jan 28 07:13	11°♀35'11	
	1823 Oct 25 21:13	0°♂			1829 Feb 23 16:00	0°♂	
	1823 Dec 23 15:34	0°♂			1829 Apr 08 15:20	0°♂	
retrograde	1824 Feb 15 10:27	13°♂22'07			1829 May 24 01:00	0°♂	
opposition	1824 Mar 25 04:24	4°♂29'19	3°15'54	evening set	1829 Jul 03 07:16	25°♂58'15	
greatest brilliancy	1824 Mar 25 21:43	4°♂12'29	-1.4m		1829 Jul 09 14:28	0°♂	
min. Earth dist.	1824 Mar 29 17:48	2°♂43'00	0.64092 AU				
	1824 Apr 06 01:24	30°♂♂		conjunction	1829 Aug 19 03:34	25°♂49'29	1°08'28
direct	1824 May 05 12:57	24°♂28'12		minimum elong	1829 Aug 19 03:49	25°♂49'54	1°08'28
	1824 Jun 06 08:48	0°♂		max. Earth dist.	1829 Aug 18 13:15	25°♂26'44	2.67573 AU
desc. node	1824 Jun 25 07:43	7°♂12'42			1829 Aug 25 17:02	0°♂	
	1824 Aug 07 19:06	0°♂		morning rise	1829 Oct 02 16:59	24°♂15'00	
	1824 Sep 23 01:45	0°♂			1829 Oct 11 16:08	0°♂	
	1824 Nov 03 11:30	0°♂			1829 Nov 27 00:37	0°♂	
	1824 Dec 12 13:12	0°≈			1830 Jan 11 15:39	0°♂	
	1825 Jan 19 18:15	0°♂		desc. node	1830 Feb 15 04:42	22°♂58'17	
	1825 Feb 27 06:02	0°♀			1830 Feb 25 17:22	0°♂	
evening set	1825 Mar 27 06:22	21°♀18'24			1830 Apr 11 19:06	0°≈	
	1825 Apr 07 22:16	0°♂			1830 May 28 16:57	0°♂	
asc. node	1825 Apr 25 08:34	12°♂47'06			1830 Jul 31 20:24	0°♀	
	1825 May 19 09:40	0°♂		retrograde	1830 Aug 18 14:37	2°♀08'26	
					1830 Sep 05 13:05	30°♂♂	
conjunction	1825 May 26 22:37	5°♂17'58	0°19'35	min. Earth dist.	1830 Sep 14 12:03	27°♂40'56	0.38667 AU
minimum elong	1825 May 26 21:28	5°♂15'58	0°19'34	opposition	1830 Sep 19 16:21	26°♂11'27	-5°-13'-51
max. Earth dist.	1825 Jun 28 18:51	27°♂51'37	2.55536 AU	greatest brilliancy	1830 Sep 18 14:38	26°♂30'02	-2.8m
	1825 Jul 01 23:06	0°♂		direct	1830 Oct 19 12:49	20°♂59'40	
morning rise	1825 Jul 20 07:20	12°♂13'18			1830 Nov 28 11:12	0°♀	
	1825 Aug 16 13:52	0°♂		asc. node	1830 Dec 16 05:56	7°♀57'24	
	1825 Oct 03 03:35	0°♂			1831 Jan 25 15:38	0°♂	
	1825 Nov 22 03:03	0°♂			1831 Mar 16 04:58	0°♂	
	1826 Jan 16 16:12	0°♂			1831 May 03 12:51	0°♂	
retrograde	1826 Mar 30 05:04	21°♂♂51'02			1831 Jun 20 16:45	0°♂	
opposition	1826 May 05 06:53	14°♂12'32	0°22'05		1831 Aug 07 12:13	0°♂	
greatest brilliancy	1826 May 05 10:55	14°♂08'52	-1.9m	evening set	1831 Aug 10 03:08	1°♂39'31	
min. Earth dist.	1826 May 13 02:13	11°♂22'18	0.54195 AU	max. Earth dist.	1831 Sep 10 17:15	21°♂48'22	2.65470 AU
desc. node	1826 May 13 06:09	11°♂18'49			1831 Sep 23 09:46	0°♂	
direct	1826 Jun 13 21:38	4°♂55'33					
	1826 Aug 24 13:52	0°♂		conjunction	1831 Sep 24 14:47	0°♂47'03	0°50'52
	1826 Oct 09 17:32	0°♂		minimum elong	1831 Sep 24 15:55	0°♂48'53	0°50'52
	1826 Nov 19 14:09	0°≈			1831 Nov 07 21:50	0°♂	
	1826 Dec 28 20:43	0°♂		morning rise	1831 Nov 08 13:27	0°♂26'12	
	1827 Feb 06 05:39	0°♀			1831 Dec 21 19:40	0°♂	
asc. node	1827 Mar 13 07:46	26°♀02'58		desc. node	1832 Jan 03 03:25	8°♂37'11	
	1827 Mar 18 18:01	0°♂			1832 Feb 02 04:47	0°♂	
	1827 Apr 30 00:04	0°♂			1832 Mar 14 08:04	0°≈	
evening set	1827 May 22 02:01	15°♂09'25			1832 Apr 23 18:15	0°♂	
	1827 Jun 13 03:58	0°♂			1832 Jun 03 11:51	0°♀	
					1832 Jul 16 17:51	0°♂	
conjunction	1827 Jul 12 13:25	19°♂20'54	0°59'46		1832 Sep 09 14:52	0°♂	
minimum elong	1827 Jul 12 12:12	19°♂18'55	0°59'45	retrograde	1832 Oct 13 22:24	7°♂24'19	
max. Earth dist.	1827 Jul 26 16:19	28°♂30'30	2.64241 AU	asc. node	1832 Nov 02 04:55	4°♂40'15	
	1827 Jul 28 23:46	0°♂		min. Earth dist.	1832 Nov 12 18:29	1°♂14'50	0.50596 AU
morning rise	1827 Aug 28 21:57	19°♂48'17			1832 Nov 16 03:41	30°♂♂	
	1827 Sep 13 23:38	0°♂		opposition	1832 Nov 20 14:33	28°♂19'54	0°56'57
	1827 Oct 31 16:59	0°♂		greatest brilliancy	1832 Nov 20 03:28	28°♂30'14	-2.1m
	1827 Dec 19 04:49	0°♂		direct	1832 Dec 24 22:48	20°♂53'38	

	1833 Feb 04 18:52	0°♊		minimum elong	1838 Feb 24 06:27	5°♋14'03	1°01'53
	1833 Apr 07 19:26	0°♌			1838 Mar 27 20:09	0°♍	
	1833 May 30 03:30	0°♍		max. Earth dist.	1838 Mar 31 08:56	2°♍44'36	2.37695 AU
	1833 Jul 18 16:30	0°♎		morning rise	1838 May 05 16:35	29°♍42'04	
evening set	1833 Sep 04 03:13	0°♏			1838 May 06 02:10	0°♐	
max. Earth dist.	1833 Sep 15 14:49	7°♏28'18			1838 Jun 16 03:13	0°♑	
	1833 Oct 06 01:07	20°♏59'15	2.58094 AU	asc. node	1838 Jun 25 01:32	6°♑19'10	
	1833 Oct 19 10:01	0°♒			1838 Jul 29 13:39	0°♌	
conjunction	1833 Nov 01 18:53	9°♒08'41	0°10'49		1838 Sep 14 02:10	0°♍	
minimum elong	1833 Nov 01 19:19	9°♒09'25	0°10'49		1838 Nov 04 16:38	0°♎	
behind sun begin	1833 Nov 01 04:00	8°♒43'04		retrograde	1839 Jan 25 13:14	0°♏	
behind sun end	1833 Nov 02 10:38	9°♒35'48			1839 Jan 31 21:32	0°♏14'30	
desc. node	1833 Nov 20 01:53	21°♒53'02		opposition	1839 Feb 07 01:57	30°♎	
	1833 Dec 01 13:02	0°♐		greatest brilliancy	1839 Mar 12 06:34	21°♎01'48	3°53'20
morning rise	1833 Dec 21 04:04	14°♐08'01		min. Earth dist.	1839 Mar 12 19:27	20°♎49'07	-1.3m
	1834 Jan 11 17:55	0°♑		direct	1839 Mar 15 08:07	19°♎49'25	0.66314 AU
	1834 Feb 20 11:53	0°♒			1839 Apr 22 15:54	11°♎00'03	
	1834 Mar 31 10:17	0°♋		desc. node	1839 Jun 26 21:05	0°♏	
	1834 May 09 08:56	0°♌			1839 Jul 12 22:58	8°♏15'34	
	1834 Jun 18 09:45	0°♍			1839 Aug 18 22:29	0°♎	
	1834 Jul 31 02:40	0°♎			1839 Oct 02 17:00	0°♐	
	1834 Sep 18 07:52	0°♏			1839 Nov 12 15:28	0°♑	
asc. node	1834 Sep 20 04:51	0°♏59'44			1839 Dec 21 12:26	0°♒	
retrograde	1834 Nov 23 20:03	21°♏32'11		evening set	1840 Jan 28 14:12	0°♋	
min. Earth dist.	1834 Dec 28 23:45	13°♏26'53	0.61890 AU		1840 Feb 29 13:22	25°♋03'42	
opposition	1835 Jan 02 15:22	11°♏35'29	3°50'01		1840 Mar 06 22:09	0°♌	
greatest brilliancy	1835 Jan 01 17:31	11°♏57'19	-1.5m		1840 Apr 15 09:35	0°♍	
direct	1835 Feb 09 16:28	2°♏41'26		conjunction	1840 May 04 14:15	14°♌08'15	0°-4'-50
	1835 May 04 12:49	0°♍		minimum elong	1840 May 04 14:36	14°♌08'54	0°04'51
	1835 Jun 28 01:04	0°♎		behind sun begin	1840 May 03 13:36	13°♌23'22	
	1835 Aug 16 03:00	0°♏		behind sun end	1840 May 05 15:36	14°♌54'24	
	1835 Sep 30 18:59	0°♒		asc. node	1840 May 12 01:52	19°♌33'51	
desc. node	1835 Oct 08 01:28	4°♒57'39			1840 May 26 15:59	0°♑	
evening set	1835 Oct 27 21:06	18°♒44'52		max. Earth dist.	1840 Jun 15 03:06	13°♑38'33	2.50764 AU
max. Earth dist.	1835 Nov 11 12:50	29°♒11'09	2.46312 AU	morning rise	1840 Jul 02 09:13	25°♑28'34	
	1835 Nov 12 16:00	0°♐			1840 Jul 09 01:46	0°♌	
conjunction	1835 Dec 20 07:10	27°♐44'36	0°-42'-5		1840 Aug 23 17:38	0°♍	
minimum elong	1835 Dec 20 05:11	27°♐40'53	0°42'05		1840 Oct 10 19:49	0°♎	
	1835 Dec 23 06:57	0°♑			1840 Dec 01 15:42	0°♏	
	1836 Jan 31 08:18	0°♒		retrograde	1841 Feb 05 08:45	0°♒	
morning rise	1836 Feb 19 12:50	15°♒00'16			1841 Mar 11 18:24	6°♒04'04	
	1836 Mar 09 15:02	0°♋		opposition	1841 Apr 12 06:06	30°♒	
greatest brilliancy	1836 Mar 26 06:09	13°♋03'16	1.2m	greatest brilliancy	1841 Apr 18 02:05	27°♒51'37	1°44'52
	1836 Apr 16 23:47	0°♌		min. Earth dist.	1841 Apr 18 17:50	27°♒36'47	-1.6m
	1836 May 26 08:16	0°♍		direct	1841 Apr 24 18:37	25°♒20'31	0.58723 AU
	1836 Jul 06 14:59	0°♎		desc. node	1841 May 28 17:22	18°♒07'50	
asc. node	1836 Aug 07 02:46	21°♒33'54			1841 May 29 21:30	18°♒08'23	
	1836 Aug 20 00:03	0°♏			1841 Jul 15 01:48	0°♒	
	1836 Oct 09 04:28	0°♍			1841 Sep 06 17:39	0°♐	
retrograde	1836 Dec 27 23:04	26°♍58'50			1841 Oct 19 23:26	0°♑	
min. Earth dist.	1837 Feb 05 07:32	17°♍30'37	0.67398 AU		1841 Nov 28 19:35	0°♒	
opposition	1837 Feb 06 02:56	17°♍11'11	4°33'31		1842 Jan 06 12:16	0°♋	
greatest brilliancy	1837 Feb 05 21:38	17°♍16'30	-1.2m		1842 Feb 14 10:08	0°♌	
direct	1837 Mar 18 12:34	7°♍29'29		asc. node	1842 Mar 26 12:16	0°♍	
	1837 May 31 15:42	0°♎		evening set	1842 Mar 30 00:42	2°♍34'28	
	1837 Jul 25 00:53	0°♏			1842 May 02 06:43	26°♍25'16	
desc. node	1837 Aug 25 00:42	19°♏22'03			1842 May 07 09:05	0°♑	
	1837 Sep 10 04:48	0°♒			1842 Jun 20 05:27	0°♌	
	1837 Oct 23 09:30	0°♐		conjunction	1842 Jun 25 18:41	3°♌42'24	0°48'10
	1837 Dec 02 20:58	0°♑		minimum elong	1842 Jun 25 17:05	3°♌39'44	0°48'08
evening set	1837 Dec 20 19:39	13°♑46'04		max. Earth dist.	1842 Jul 16 14:11	17°♌27'04	2.61434 AU
	1838 Jan 10 15:15	0°♒			1842 Aug 04 21:22	0°♍	
	1838 Feb 17 15:29	0°♋		morning rise	1842 Aug 14 06:27	6°♍02'23	
conjunction	1838 Feb 24 04:34	5°♋10'19	-1°-1'-54		1842 Sep 20 23:43	0°♎	
					1842 Nov 08 07:22	0°♏	

	1842 Dec 28 10:41	0°♄			1848 Apr 18 00:17	0°♄		
	1843 Feb 21 18:29	0°♂			1848 Jun 07 03:41	0°♂		
desc. node	1843 Apr 16 20:42	19°♂53'20			1848 Jul 25 20:22	0°♄		
retrograde	1843 May 03 22:29	21°♂34'27		evening set	1848 Aug 31 18:27	23°♄23'21		
opposition	1843 Jun 06 12:26	15°♂05'57	-2°-38'-38		1848 Sep 11 00:20	0°♄		
greatest brilliancy	1843 Jun 07 16:26	14°♂42'51	-2.3m	max. Earth dist.	1848 Sep 25 04:56	9°♄15'16	2.61607 AU	
min. Earth dist.	1843 Jun 14 22:37	12°♂20'12	0.46130 AU					
direct	1843 Jul 13 05:25	7°♂11'22		conjunction	1848 Oct 16 20:32	23°♄36'38	0°28'44	
	1843 Sep 16 18:05	0°♄		minimum elong	1848 Oct 16 21:28	23°♄38'12	0°28'44	
	1843 Nov 01 16:19	0°♂			1848 Oct 26 08:18	0°♄		
	1843 Dec 13 02:00	0°♂		morning rise	1848 Dec 02 20:13	25°♄51'14		
	1844 Jan 22 19:52	0°♄		desc. node	1848 Dec 06 18:25	28°♄37'04		
asc. node	1844 Feb 14 22:48	16°♄48'03			1848 Dec 08 17:24	0°♂		
	1844 Mar 04 09:36	0°♂			1849 Jan 19 07:29	0°♄		
	1844 Apr 16 12:07	0°♄			1849 Feb 28 11:37	0°♂		
	1844 May 31 07:12	0°♄			1849 Apr 08 20:04	0°♂		
evening set	1844 Jun 17 10:29	11°♄13'01			1849 May 18 05:02	0°♄		
	1844 Jul 16 11:53	0°♂			1849 Jun 27 20:55	0°♂		
					1849 Aug 11 03:50	0°♄		
conjunction	1844 Aug 04 15:30	12°♂15'44	1°08'28	asc. node	1849 Oct 06 19:47	29°♄28'32		
minimum elong	1844 Aug 04 15:11	12°♂15'15	1°08'27		1849 Oct 08 06:52	0°♄		
max. Earth dist.	1844 Aug 09 12:46	15°♂22'54	2.66921 AU	retrograde	1849 Nov 09 00:24	6°♄07'05		
	1844 Sep 01 11:39	0°♄			1849 Dec 08 20:13	30°♄		
morning rise	1844 Sep 18 21:49	11°♄04'51		min. Earth dist.	1849 Dec 12 05:27	28°♄42'38	0.58058 AU	
	1844 Oct 18 15:20	0°♄		greatest brilliancy	1849 Dec 17 07:22	26°♄42'43	-1.7m	
	1844 Dec 04 14:29	0°♄		opposition	1849 Dec 18 07:03	26°♄19'23	3°03'13	
	1845 Jan 20 10:53	0°♂		direct	1850 Jan 24 01:09	17°♄53'28		
desc. node	1845 Mar 03 19:45	26°♂53'14			1850 Mar 15 11:17	0°♄		
	1845 Mar 08 19:01	0°♄			1850 May 15 06:14	0°♂		
	1845 Apr 27 14:30	0°♂			1850 Jul 06 02:39	0°♄		
	1845 Jul 10 20:26	0°♂			1850 Aug 23 09:06	0°♄		
retrograde	1845 Jul 19 12:19	0°♂28'37			1850 Oct 07 20:13	0°♄		
	1845 Jul 28 02:03	30°♄		evening set	1850 Oct 10 10:31	1°♄46'03		
opposition	1845 Aug 18 15:18	25°♄27'59	-6°-49'-20	desc. node	1850 Oct 24 16:49	11°♄34'50		
min. Earth dist.	1845 Aug 18 11:32	25°♄30'27	0.37302 AU	max. Earth dist.	1850 Oct 26 02:03	12°♄32'35	2.51355 AU	
greatest brilliancy	1845 Aug 18 17:18	25°♄26'40	-2.9m		1850 Nov 19 18:51	0°♂		
direct	1845 Sep 17 08:00	20°♄31'26						
	1845 Oct 27 15:47	0°♂		conjunction	1850 Nov 29 15:36	7°♂07'18	0°-21'-31	
	1845 Dec 22 02:20	0°♄		minimum elong	1850 Nov 29 14:35	7°♂05'26	0°21'32	
asc. node	1846 Jan 01 22:19	6°♄43'31			1850 Dec 30 14:40	0°♄		
	1846 Feb 07 07:56	0°♂		morning rise	1851 Jan 24 02:53	18°♄36'30		
	1846 Mar 25 16:19	0°♄			1851 Feb 07 21:37	0°♂		
	1846 May 11 11:52	0°♄			1851 Mar 18 09:19	0°♂		
	1846 Jun 27 21:00	0°♂			1851 Apr 25 21:49	0°♄		
evening set	1846 Jul 26 16:50	18°♂12'05			1851 Jun 04 09:41	0°♂		
	1846 Aug 14 08:00	0°♄			1851 Jul 15 23:17	0°♄		
max. Earth dist.	1846 Sep 01 12:04	11°♄33'55	2.66938 AU	asc. node	1851 Aug 24 19:31	26°♄34'21		
					1851 Aug 30 06:32	0°♄		
conjunction	1846 Sep 10 08:51	17°♄14'04	1°00'34		1851 Oct 23 20:39	0°♂		
minimum elong	1846 Sep 10 09:46	17°♄15'33	1°00'34	retrograde	1851 Dec 15 14:43	13°♄56'32		
	1846 Sep 30 04:44	0°♄		min. Earth dist.	1852 Jan 22 10:46	4°♄57'35	0.66007 AU	
morning rise	1846 Oct 24 18:37	16°♄00'40		opposition	1852 Jan 24 18:56	4°♄01'12	4°27'53	
	1846 Nov 14 22:53	0°♄		greatest brilliancy	1852 Jan 24 06:05	4°♄14'06	-1.3m	
	1846 Dec 29 09:10	0°♂			1852 Feb 04 06:28	30°♄		
desc. node	1847 Jan 19 19:27	14°♂47'43		direct	1852 Mar 04 10:18	24°♄34'37		
	1847 Feb 10 12:47	0°♄			1852 Apr 05 19:25	0°♂		
	1847 Mar 24 15:42	0°♂			1852 Jun 11 20:38	0°♄		
	1847 May 05 08:09	0°♂			1852 Aug 02 08:00	0°♄		
	1847 Jun 17 01:41	0°♄		desc. node	1852 Sep 10 15:45	25°♄15'30		
	1847 Aug 05 00:47	0°♂			1852 Sep 17 17:41	0°♄		
retrograde	1847 Sep 25 10:53	15°♄28'36			1852 Oct 30 17:52	0°♂		
min. Earth dist.	1847 Oct 23 04:16	10°♄11'25	0.45355 AU	evening set	1852 Nov 27 07:23	20°♂14'55		
opposition	1847 Oct 31 09:25	7°♄21'24	-1°-7'-8		1852 Dec 10 06:01	0°♄		
greatest brilliancy	1847 Oct 30 21:22	7°♄31'50	-2.4m	max. Earth dist.	1852 Dec 24 19:03	11°♄07'03	2.38711 AU	
asc. node	1847 Nov 19 21:19	1°♄54'32			1853 Jan 18 02:25	0°♂		
direct	1847 Dec 02 22:17	0°♄45'55						
	1848 Feb 24 20:39	0°♄		conjunction	1853 Jan 26 17:59	6°♄47'03	-1°-3'-43	

minimum elong	1853 Jan 26 16:56	6° 45 '01	1°03'45	desc. node	1858 May 03 11:57	28° 11 '58'50	
	1853 Feb 25 04:34	0° 45 '		opposition	1858 May 16 02:51	24° 11 '54'49	0°-36'-42
	1853 Apr 04 10:05	0° 45 '		greatest brilliancy	1858 May 16 09:58	24° 11 '48'31	-2.0m
morning rise	1853 Apr 06 10:39	1° 45 '34'21		min. Earth dist.	1858 May 24 09:04	21° 11 '59'57	0.51382 AU
	1853 May 13 15:50	0° 45 '		direct	1858 Jun 23 21:21	16° 11 '01'09	
	1853 Jun 23 17:01	0° 45 '			1858 Aug 13 02:29	0° 45 '	
asc. node	1853 Jul 11 18:52	12° 45 '41'04			1858 Oct 02 08:15	0° 45 '	
	1853 Aug 06 07:40	0° 45 '			1858 Nov 13 06:55	0° 45 '	
	1853 Sep 22 15:21	0° 45 '			1858 Dec 23 02:21	0° 45 '	
	1853 Nov 16 20:30	0° 45 '			1859 Jan 31 20:08	0° 45 '	
retrograde	1854 Jan 18 01:15	17° 45 '27'35		asc. node	1859 Mar 03 15:31	22° 45 '45'15	
opposition	1854 Feb 26 20:42	7° 45 '58'36	4°18'08		1859 Mar 13 15:18	0° 45 '	
greatest brilliancy	1854 Feb 27 03:07	7° 45 '52'14	-1.2m		1859 Apr 25 02:56	0° 45 '	
min. Earth dist.	1854 Feb 28 09:46	7° 45 '21'47	0.67521 AU	evening set	1859 Jun 01 10:21	25° 45 '19'42	
	1854 Mar 22 12:43	30° 45 ' R			1859 Jun 08 10:45	0° 45 '	
direct	1854 Apr 09 00:53	28° 45 ' 01 '24					
	1854 Apr 27 19:03	0° 45 '		conjunction	1859 Jul 21 13:20	28° 45 '11'25	1°04'14
	1854 Jul 09 04:44	0° 45 '		minimum elong	1859 Jul 21 12:26	28° 45 '09'58	1°04'14
desc. node	1854 Jul 29 14:45	11° 45 ' 44 '27			1859 Jul 24 08:40	0° 45 '	
	1854 Aug 27 20:39	0° 45 '		max. Earth dist.	1859 Aug 01 05:22	5° 45 ' 03 '40	2.65427 AU
	1854 Oct 10 18:56	0° 45 '		morning rise	1859 Sep 06 00:11	27° 45 ' 05 '40'9	
	1854 Nov 20 11:07	0° 45 '			1859 Sep 09 07:31	0° 45 '	
	1854 Dec 29 05:46	0° 45 '			1859 Oct 26 18:54	0° 45 '	
evening set	1855 Feb 01 06:44	26° 45 ' 52 '01			1859 Dec 13 15:03	0° 45 '	
	1855 Feb 05 05:52	0° 45 '			1860 Jan 31 08:46	0° 45 '	
	1855 Mar 15 11:32	0° 45 '		desc. node	1860 Mar 20 12:08	28° 45 ' 33 '31	
					1860 Mar 23 03:31	0° 45 '	
conjunction	1855 Apr 10 03:30	19° 45 '42'05	0°-31'-17		1860 Jun 10 05:47	0° 45 '	
minimum elong	1855 Apr 10 06:00	19° 45 '46'50	0°31'15	retrograde	1860 Jun 16 21:19	0° 45 '16'36	
	1855 Apr 23 19:42	0° 45 '			1860 Jun 23 11:49	30° 45 ' R	
max. Earth dist.	1855 May 29 09:09	26° 45 ' 01 '44	2.45505 AU	opposition	1860 Jul 17 13:18	25° 45 ' 05 '36	-6°-5'-50
asc. node	1855 May 29 17:17	26° 45 '16'17		greatest brilliancy	1860 Jul 18 21:47	24° 45 ' 42 '47	-2.7m
	1855 Jun 03 22:43	0° 45 '		min. Earth dist.	1860 Jul 22 11:52	23° 45 ' 42 '40	0.39089 AU
morning rise	1855 Jun 13 02:30	6° 45 ' 28 '36		direct	1860 Aug 18 14:41	19° 45 ' 18 '08	
	1855 Jul 17 06:47	0° 45 '			1860 Sep 29 18:00	0° 45 '	
	1855 Sep 01 02:45	0° 45 '			1860 Nov 21 03:47	0° 45 '	
	1855 Oct 20 00:54	0° 45 '			1861 Jan 04 19:58	0° 45 '	
	1855 Dec 14 03:44	0° 45 '		asc. node	1861 Jan 18 13:12	9° 45 '24'06	
retrograde	1856 Feb 24 06:17	21° 45 ' 39 '53			1861 Feb 17 16:11	0° 45 '	
opposition	1856 Apr 02 13:30	12° 45 ' 59 '58	2°47'06		1861 Apr 03 06:50	0° 45 '	
greatest brilliancy	1856 Apr 03 07:36	12° 45 ' 42 '31	-1.4m		1861 May 19 02:11	0° 45 '	
min. Earth dist.	1856 Apr 07 21:24	10° 45 ' 56 '47	0.62437 AU		1861 Jul 04 21:32	0° 45 '	
direct	1856 May 13 18:12	3° 45 ' 52 '34		evening set	1861 Jul 12 00:03	4° 45 ' 31 '18	
desc. node	1856 Jun 15 12:52	8° 45 ' 58 '07			1861 Aug 21 02:25	0° 45 '	
	1856 Jun 31 05:20	0° 45 '		max. Earth dist.	1861 Aug 23 17:28	1° 45 '40'15	2.67586 AU
	1856 Sep 17 03:44	0° 45 '					
	1856 Oct 29 02:08	0° 45 '		conjunction	1861 Aug 27 06:55	3° 45 '56'12	1°06'39
	1856 Dec 07 09:17	0° 45 '		minimum elong	1861 Aug 27 07:28	3° 45 '57'04	1°06'38
	1857 Jan 14 17:38	0° 45 '			1861 Oct 07 00:18	0° 45 '	
	1857 Feb 22 07:59	0° 45 '		morning rise	1861 Oct 10 15:33	2° 45 ' 20 '38	
	1857 Apr 03 02:23	0° 45 '			1861 Nov 22 03:11	0° 45 '	
evening set	1857 Apr 10 01:17	5° 45 ' 07 '10			1862 Jan 06 06:38	0° 45 '	
asc. node	1857 Apr 15 16:45	9° 45 ' 14 '42		desc. node	1862 Feb 05 10:57	20° 45 ' 32 '57	
	1857 May 14 15:50	0° 45 '			1862 Feb 19 13:00	0° 45 '	
					1862 Apr 04 06:03	0° 45 '	
conjunction	1857 Jun 07 08:27	16° 45 ' 28 '29	0°31'28		1862 May 18 09:36	0° 45 '	
minimum elong	1857 Jun 07 06:54	16° 45 ' 25 '51	0°31'28		1862 Jul 05 20:04	0° 45 '	
	1857 Jun 27 06:24	0° 45 '		retrograde	1862 Sep 02 11:49	19° 45 '14'36	
max. Earth dist.	1857 Jul 05 18:24	5° 45 ' 54 '21	2.57843 AU	min. Earth dist.	1862 Sep 29 00:36	14° 45 '39'29	0.40576 AU
morning rise	1857 Jul 29 17:28	21° 45 ' 52 '16		greatest brilliancy	1862 Oct 04 20:35	12° 45 '51'48	-2.7m
	1857 Aug 11 20:23	0° 45 '		opposition	1862 Oct 06 00:30	12° 45 '30'13	-3°-44'-29
	1857 Sep 28 04:16	0° 45 '		direct	1862 Nov 05 14:00	6° 45 '51'57	
	1857 Nov 16 09:30	0° 45 '		asc. node	1862 Dec 06 13:01	12° 45 '26'55	
	1858 Jan 08 06:10	0° 45 '			1863 Jan 15 09:19	0° 45 '	
	1858 Mar 22 03:33	0° 45 '			1863 Mar 09 09:51	0° 45 '	
retrograde	1858 Apr 10 20:00	2° 45 ' 31 '04'7			1863 Apr 27 23:24	0° 45 '	
	1858 Apr 29 11:03	30° 45 ' R			1863 Jun 15 17:20	0° 45 '	

	1863 Aug 02 19:30	0°♍		morning rise	1868 Mar 06 21:43	1°♋40'43	
evening set	1863 Aug 18 08:40	9°♍50'02			1868 Apr 12 01:35	0°♍	
max. Earth dist.	1863 Sep 16 05:21	28°♍19'48	2.64316 AU		1868 May 21 07:59	0°♋	
	1863 Sep 18 19:13	0°♌			1868 Jul 01 10:56	0°♍	
				asc. node	1868 Jul 28 10:13	18°♍41'08	
conjunction	1863 Oct 02 22:08	9°♌12'11	0°43'39		1868 Aug 14 10:10	0°♋	
minimum elong	1863 Oct 02 23:16	9°♌14'02	0°43'38		1868 Oct 02 03:30	0°♌	
	1863 Nov 03 05:55	0°♍			1868 Dec 06 02:58	0°♍	
morning rise	1863 Nov 17 09:26	9°♍34'50		retrograde	1869 Jan 04 14:42	4°♍47'04	
	1863 Dec 16 23:01	0°♎			1869 Jan 31 16:52	30°♌♌	
desc. node	1863 Dec 24 09:32	5°♎13'21		opposition	1869 Feb 13 16:46	25°♌05'00	4°31'16
	1864 Jan 28 01:00	0°♏		greatest brilliancy	1869 Feb 13 15:44	25°♌06'01	-1.2m
	1864 Mar 08 19:07	0°♐		min. Earth dist.	1869 Feb 13 17:21	25°♌04'25	0.67719 AU
	1864 Apr 17 18:29	0°♋		direct	1869 Mar 26 10:31	15°♌16'41	
	1864 May 27 21:00	0°♍			1869 May 22 13:37	0°♍	
	1864 Jul 08 18:41	0°♋			1869 Jul 19 03:23	0°♌	
	1864 Aug 25 23:52	0°♍		desc. node	1869 Aug 15 06:05	16°♌32'29	
retrograde	1864 Oct 23 21:10	18°♍47'18			1869 Sep 05 01:16	0°♍	
asc. node	1864 Oct 23 13:12	18°♍47'16			1869 Oct 18 11:50	0°♎	
min. Earth dist.	1864 Nov 23 23:04	12°♍09'41	0.53398 AU		1869 Nov 28 01:15	0°♏	
greatest brilliancy	1864 Nov 30 11:20	9°♍40'24	-1.9m	evening set	1870 Jan 04 12:00	28°♏57'37	
opposition	1864 Dec 01 06:14	9°♍22'17	1°51'49		1870 Jan 05 19:48	0°♐	
direct	1865 Jan 05 11:48	1°♍32'28			1870 Feb 12 19:54	0°♋	
	1865 Mar 31 02:58	0°♋					
	1865 May 24 11:19	0°♌		conjunction	1870 Mar 12 18:05	21°♋59'15	0°-53'-59
	1865 Jul 13 16:58	0°♍		minimum elong	1870 Mar 12 21:09	22°♋05'14	0°53'58
	1865 Aug 30 10:23	0°♌			1870 Mar 23 00:38	0°♍	
evening set	1865 Sep 24 09:02	16°♌18'10			1870 May 01 06:42	0°♋	
max. Earth dist.	1865 Oct 12 19:29	28°♌39'14	2.55877 AU	max. Earth dist.	1870 May 01 15:06	0°♋15'46	2.40151 AU
	1865 Oct 14 19:08	0°♍		morning rise	1870 May 20 14:23	14°♋18'57	
desc. node	1865 Nov 10 08:19	18°♍18'39			1870 Jun 11 07:17	0°♍	
				asc. node	1870 Jun 15 10:13	2°♍55'44	
conjunction	1865 Nov 11 09:46	19°♍03'13	0°00'-38		1870 Jul 24 15:16	0°♋	
minimum elong	1865 Nov 11 09:42	19°♍03'08	0°00'38		1870 Sep 08 18:58	0°♌	
behind sun begin	1865 Nov 10 13:02	18°♍26'55			1870 Oct 29 01:47	0°♍	
behind sun end	1865 Nov 12 06:22	19°♍39'22			1870 Dec 30 17:16	0°♌	
	1865 Nov 26 20:52	0°♎		retrograde	1871 Feb 09 02:49	8°♌09'20	
morning rise	1866 Jan 01 13:42	26°♎00'08			1871 Mar 17 21:28	30°♌♍	
	1866 Jan 06 22:42	0°♏		opposition	1871 Mar 20 03:57	29°♍06'58	3°32'57
	1866 Feb 15 12:31	0°♐		greatest brilliancy	1871 Mar 20 19:29	28°♍51'46	-1.3m
	1866 Mar 26 06:34	0°♋		min. Earth dist.	1871 Mar 24 01:00	27°♍35'58	0.65210 AU
	1866 May 04 00:45	0°♍		direct	1871 Apr 30 13:36	19°♍04'51	
	1866 Jun 12 19:06	0°♋			1871 Jun 16 09:08	0°♌	
	1866 Jul 24 22:04	0°♍		desc. node	1871 Jul 03 05:28	7°♌35'08	
asc. node	1866 Sep 10 11:40	0°♋15'23			1871 Aug 12 15:39	0°♍	
	1866 Sep 10 01:03	0°♋			1871 Sep 27 06:32	0°♎	
	1866 Nov 25 18:21	0°♌			1871 Nov 07 12:08	0°♏	
retrograde	1866 Dec 01 22:07	0°♌15'05			1871 Dec 16 12:00	0°♐	
	1866 Dec 07 22:47	30°♌♍			1872 Jan 23 15:23	0°♋	
min. Earth dist.	1867 Jan 07 02:07	21°♋49'31	0.63624 AU		1872 Mar 02 00:53	0°♍	
opposition	1867 Jan 10 22:25	20°♋17'05	4°08'39	evening set	1872 Mar 15 23:25	10°♍42'22	
greatest brilliancy	1867 Jan 10 03:07	20°♋36'25	-1.4m		1872 Apr 10 13:54	0°♋	
direct	1867 Feb 18 14:46	11°♋10'08		asc. node	1872 May 02 08:23	15°♋59'00	
	1867 Apr 26 02:14	0°♌					
	1867 Jun 22 06:55	0°♍		conjunction	1872 May 17 15:25	26°♋58'16	0°09'43
	1867 Aug 11 02:24	0°♌		minimum elong	1872 May 17 14:47	26°♋57'08	0°09'42
	1867 Sep 26 00:47	0°♍		behind sun begin	1872 May 16 18:51	26°♋21'39	
desc. node	1867 Sep 28 07:13	1°♍32'17		behind sun end	1872 May 18 10:43	27°♋32'34	
evening set	1867 Nov 07 14:29	29°♍43'59			1872 May 21 21:49	0°♍	
	1867 Nov 07 23:23	0°♎		max. Earth dist.	1872 Jun 23 09:37	22°♍34'48	2.53499 AU
max. Earth dist.	1867 Nov 23 11:58	11°♎17'35	2.43486 AU		1872 Jul 04 08:16	0°♋	
	1867 Dec 18 13:55	0°♏		morning rise	1872 Jul 12 20:03	5°♋41'48	
					1872 Aug 18 22:05	0°♌	
conjunction	1868 Jan 02 05:32	11°♏09'42	0°-52'-17		1872 Oct 05 15:19	0°♍	
minimum elong	1868 Jan 02 03:22	11°♏05'33	0°52'16		1872 Nov 25 05:47	0°♌	
	1868 Jan 26 13:40	0°♐			1873 Jan 22 12:35	0°♍	
	1868 Mar 04 18:33	0°♋		retrograde	1873 Mar 21 22:29	15°♍17'24	

opposition	1873 Apr 27 14:46	7°♌22'35	0°59'46		1878 May 06 06:24	0°♍	
greatest brilliancy	1873 Apr 28 01:20	7°♌12'47	-1.8m		1878 Jun 23 01:05	0°♌	
min. Earth dist.	1873 May 04 23:07	4°♌39'33	0.56325 AU	evening set	1878 Aug 03 23:58	26°♌23'57	
desc. node	1873 May 20 04:03	29°♊57'46			1878 Aug 09 16:34	0°♎	
	1873 May 20 00:16	30°♊♊		max. Earth dist.	1878 Sep 06 20:44	17°♎56'24	2.66228 AU
direct	1873 Jun 06 18:08	27°♊51'40					
	1873 Jun 25 07:52	0°♌		conjunction	1878 Sep 18 12:13	25°♎25'25	0°55'20
	1873 Aug 30 02:57	0°♊		minimum elong	1878 Sep 18 13:17	25°♎27'08	0°55'19
	1873 Oct 13 19:18	0°♋			1878 Sep 25 14:11	0°♊	
	1873 Nov 23 04:09	0°♌		morning rise	1878 Nov 02 03:21	24°♊36'41	
	1874 Jan 01 03:35	0°♋			1878 Nov 10 05:36	0°♌	
	1874 Feb 09 06:30	0°♎			1878 Dec 24 09:29	0°♊	
asc. node	1874 Mar 20 07:00	29°♎05'30		desc. node	1879 Jan 10 01:11	11°♊34'43	
	1874 Mar 21 12:49	0°♋			1879 Feb 05 03:05	0°♋	
	1874 May 02 13:17	0°♌			1879 Mar 18 16:22	0°♌	
evening set	1874 May 13 20:02	7°♌49'25			1879 Apr 28 14:09	0°♋	
	1874 Jun 15 12:29	0°♍			1879 Jun 08 23:46	0°♎	
					1879 Jul 23 18:00	0°♋	
conjunction	1874 Jul 05 13:20	13°♍16'26	0°55'30	retrograde	1879 Oct 06 20:34	28°♋48'32	
minimum elong	1874 Jul 05 11:55	13°♍14'07	0°55'29	min. Earth dist.	1879 Nov 04 17:27	23°♋02'21	0.48241 AU
max. Earth dist.	1874 Jul 22 13:20	24°♍22'53	2.63095 AU	asc. node	1879 Nov 10 04:32	21°♋04'14	
	1874 Jul 31 05:32	0°♌		opposition	1879 Nov 12 20:11	20°♋06'11	0°08'39
morning rise	1874 Aug 22 18:13	14°♌27'53		greatest brilliancy	1880 Feb 08 16:04	27°♋22'32	-3.1m
	1874 Sep 16 05:33	0°♎		direct	1879 Dec 16 09:02	13°♋01'29	
	1874 Nov 03 04:11	0°♊			1880 Feb 14 11:39	0°♌	
	1874 Dec 22 06:39	0°♌			1880 Apr 11 13:21	0°♍	
	1875 Feb 12 06:21	0°♊			1880 Jun 01 20:14	0°♌	
desc. node	1875 Apr 07 02:58	25°♊41'01			1880 Jul 21 00:13	0°♎	
	1875 Apr 20 00:53	0°♋			1880 Sep 06 08:42	0°♊	
retrograde	1875 May 18 22:12	4°♋32'50		evening set	1880 Sep 09 04:58	1°♊50'34	
	1875 Jun 15 15:10	30°♊♊		max. Earth dist.	1880 Oct 01 08:18	16°♊21'25	2.59755 AU
opposition	1875 Jun 20 08:34	28°♊33'39	-3°-56'-55		1880 Oct 21 17:02	0°♌	
greatest brilliancy	1875 Jun 21 21:04	28°♊05'07	-2.5m				
min. Earth dist.	1875 Jun 28 05:07	26°♊06'55	0.43320 AU	conjunction	1880 Oct 25 19:45	2°♌47'29	0°18'40
direct	1875 Jul 25 14:32	21°♊21'45		minimum elong	1880 Oct 25 20:26	2°♌48'39	0°18'39
	1875 Aug 31 21:58	0°♋		desc. node	1880 Nov 26 23:44	25°♌03'10	
	1875 Oct 23 23:26	0°♌			1880 Dec 03 23:41	0°♊	
	1875 Dec 06 03:12	0°♋		morning rise	1880 Dec 13 00:15	6°♊25'54	
	1876 Jan 16 18:18	0°♎			1881 Jan 14 09:29	0°♋	
asc. node	1876 Feb 05 06:40	13°♎59'14			1881 Feb 23 08:27	0°♌	
	1876 Feb 27 21:45	0°♋			1881 Apr 03 11:12	0°♋	
	1876 Apr 11 09:45	0°♌			1881 May 12 13:46	0°♎	
	1876 May 26 11:24	0°♍			1881 Jun 21 19:08	0°♋	
evening set	1876 Jun 26 15:12	20°♍14'01			1881 Aug 03 22:58	0°♌	
	1876 Jul 11 20:03	0°♌			1881 Sep 24 06:55	0°♍	
				asc. node	1881 Sep 27 04:20	1°♍23'29	
conjunction	1876 Aug 13 00:30	20°♌32'47	1°08'57	retrograde	1881 Nov 17 14:19	15°♍33'42	
minimum elong	1876 Aug 13 00:32	20°♌32'51	1°08'56	min. Earth dist.	1881 Dec 21 21:44	7°♍46'23	0.60279 AU
max. Earth dist.	1876 Aug 14 20:49	21°♌43'21	2.67391 AU	greatest brilliancy	1881 Dec 26 05:53	6°♍03'01	-1.6m
	1876 Aug 27 20:54	0°♎		opposition	1881 Dec 27 05:20	5°♍39'44	3°33'06
morning rise	1876 Sep 26 19:50	19°♎04'50			1882 Jan 12 07:23	30°♊♊	
	1876 Oct 13 22:01	0°♊		direct	1882 Feb 02 17:36	26°♌57'37	
	1876 Nov 29 12:50	0°♌			1882 Feb 26 02:36	0°♍	
	1877 Jan 14 15:49	0°♊			1882 May 08 11:26	0°♌	
desc. node	1877 Feb 22 02:34	25°♊07'00			1882 Jun 30 18:23	0°♎	
	1877 Mar 01 14:21	0°♋			1882 Aug 18 12:42	0°♊	
	1877 Apr 17 05:15	0°♌			1882 Oct 03 03:50	0°♌	
	1877 Jun 07 04:03	0°♋		desc. node	1882 Oct 14 23:17	8°♌04'40	
retrograde	1877 Aug 06 00:08	18°♋51'52		evening set	1882 Oct 20 03:51	11°♌40'08	
min. Earth dist.	1877 Sep 02 20:19	14°♋19'03	0.37665 AU	max. Earth dist.	1882 Nov 03 22:08	22°♌01'07	2.48600 AU
opposition	1877 Sep 05 23:43	13°♋27'25	-6°-9'-59		1882 Nov 15 02:39	0°♊	
greatest brilliancy	1877 Sep 05 07:29	13°♋38'34	-2.9m				
direct	1877 Oct 05 13:26	8°♋29'44		conjunction	1882 Dec 11 00:31	18°♊54'48	0°-33'-33
	1877 Dec 10 10:44	0°♎		minimum elong	1882 Dec 10 22:54	18°♊51'48	0°33'33
asc. node	1877 Dec 23 05:56	7°♎00'58			1882 Dec 25 20:41	0°♋	
	1878 Jan 30 20:08	0°♋			1883 Feb 03 01:01	0°♌	
	1878 Mar 19 16:49	0°♌		morning rise	1883 Feb 07 13:19	3°♌30'29	

	1883 Mar 13 09:56	0° H		desc. node	1888 Jun 05 19:11	13° L 14'13	
	1883 Apr 20 19:58	0° Y			1888 Jul 22 03:42	0° M	
	1883 May 30 04:56	0° B			1888 Sep 10 19:34	0° J	
	1883 Jul 10 12:41	0° II			1888 Oct 23 11:07	0° Z	
asc. node	1883 Aug 15 02:45	24° II 09'52			1888 Dec 02 01:37	0° \approx	
	1883 Aug 24 03:37	0° S			1889 Jan 09 14:09	0° H	
	1883 Oct 14 13:25	0° Q			1889 Feb 17 07:53	0° Y	
retrograde	1883 Dec 23 06:50	21° Q 56'31			1889 Mar 29 05:26	0° B	
min. Earth dist.	1884 Jan 30 23:28	12° Q 41'12	0.66907 AU	asc. node	1889 Apr 06 00:21	5° B 42'55	
opposition	1884 Feb 01 11:44	12° Q 04'50	4°32'43	evening set	1889 Apr 22 23:22	17° B 59'12	
greatest brilliancy	1884 Feb 01 02:56	12° Q 13'39	-1.3m		1889 May 09 21:30	0° II	
direct	1884 Mar 12 14:19	2° Q 29'30					
	1884 Jun 04 20:04	0° M		conjunction	1889 Jun 18 02:02	26° II 58'25	0°41'44
	1884 Jul 27 22:02	0° L		minimum elong	1889 Jun 18 00:22	26° II 55'36	0°41'44
desc. node	1884 Aug 31 22:36	22° L 08'34			1889 Jun 22 13:58	0° S	
	1884 Sep 12 19:26	0° M		max. Earth dist.	1889 Jul 12 06:07	13° S 05'35	2.59920 AU
	1884 Oct 25 23:28	0° J		morning rise	1889 Aug 07 18:12	0° Q 23'29	
	1884 Dec 05 12:18	0° Z			1889 Aug 07 03:39	0° Q	
evening set	1884 Dec 10 04:26	3° Z 33'18			1889 Sep 23 07:13	0° M	
	1885 Jan 13 08:01	0° \approx			1889 Nov 10 22:32	0° L	
max. Earth dist.	1885 Feb 04 19:34	17° \approx 42'07	2.37083 AU		1890 Jan 01 00:29	0° M	
					1890 Mar 01 05:34	0° J	
conjunction	1885 Feb 11 11:59	22° \approx 59'04	-1°-4'-35	retrograde	1890 Apr 23 09:28	13° J 13'59	
minimum elong	1885 Feb 11 12:33	23° \approx 00'12	1°04'36	desc. node	1890 Apr 23 18:31	13° J 13'56	
	1885 Feb 20 08:57	0° H		opposition	1890 May 27 19:06	6° J 23'09	-1°-43'-18
	1885 Mar 30 13:27	0° Y		greatest brilliancy	1890 May 28 14:30	6° J 06'35	-2.2m
morning rise	1885 Apr 23 07:37	18° Y 18'48		min. Earth dist.	1890 Jun 05 07:25	3° J 29'31	0.48495 AU
	1885 May 08 18:19	0° B			1890 Jun 17 10:43	30° R M	
	1885 Jun 18 17:52	0° II		direct	1890 Jul 04 13:15	27° M 59'03	
asc. node	1885 Jul 02 00:57	9° II 23'08			1890 Jul 22 01:20	0° J	
	1885 Aug 01 04:14	0° S			1890 Sep 23 17:49	0° Z	
	1885 Sep 16 21:40	0° Q			1890 Nov 06 11:26	0° \approx	
	1885 Nov 08 13:38	0° M			1890 Dec 17 01:03	0° H	
retrograde	1886 Jan 25 22:18	25° M 13'58			1891 Jan 26 06:04	0° Y	
opposition	1886 Mar 06 12:31	15° M 53'24	4°04'57	asc. node	1891 Feb 21 22:14	19° Y 33'38	
greatest brilliancy	1886 Mar 06 22:37	15° M 43'25	-1.2m		1891 Mar 08 09:48	0° B	
min. Earth dist.	1886 Mar 08 21:28	14° M 57'07	0.66987 AU		1891 Apr 20 03:56	0° II	
direct	1886 Apr 16 20:24	5° M 53'13			1891 Jun 03 16:44	0° S	
	1886 Jul 01 16:58	0° L		evening set	1891 Jun 11 07:20	5° S 01'12	
desc. node	1886 Jul 19 20:47	9° L 51'34			1891 Jul 19 17:21	0° Q	
	1886 Aug 22 04:37	0° M					
	1886 Oct 05 15:23	0° J		conjunction	1891 Jul 30 07:04	6° Q 47'27	1°07'13
	1886 Nov 15 12:11	0° Z		minimum elong	1891 Jul 30 06:32	6° Q 46'35	1°07'13
	1886 Dec 24 08:43	0° \approx		max. Earth dist.	1891 Aug 06 15:42	11° Q 30'18	2.66358 AU
greatest brilliancy	1887 Jan 17 20:52	19° \approx 18'26	1.2m		1891 Sep 04 16:07	0° M	
	1887 Jan 31 09:37	0° H		morning rise	1891 Sep 14 00:35	5° M 56'31	
evening set	1887 Feb 17 06:42	13° H 17'53			1891 Oct 21 22:49	0° L	
	1887 Mar 10 15:58	0° Y			1891 Dec 08 06:19	0° M	
	1887 Apr 19 00:51	0° B			1892 Jan 24 20:07	0° J	
conjunction	1887 Apr 24 22:11	4° B 23'05	0°-16'-10	desc. node	1892 Mar 10 17:32	28° J 13'38	
minimum elong	1887 Apr 24 23:28	4° B 25'28	0°16'09		1892 Mar 13 16:39	0° Z	
asc. node	1887 May 20 01:09	22° B 45'06			1892 May 06 22:42	0° \approx	
	1887 May 30 04:12	0° II		retrograde	1892 Jul 05 03:28	17° \approx 14'00	
max. Earth dist.	1887 Jun 09 07:56	7° II 10'36	2.48450 AU	opposition	1892 Aug 04 06:14	12° \approx 16'16	-6°-46'-52
morning rise	1887 Jun 24 23:13	18° II 03'23		greatest brilliancy	1892 Aug 05 00:06	12° \approx 04'22	-2.8m
	1887 Jul 12 11:39	0° S		min. Earth dist.	1892 Aug 06 14:05	11° \approx 39'08	0.37736 AU
	1887 Aug 27 03:24	0° Q		direct	1892 Sep 03 17:02	7° \approx 04'33	
	1887 Oct 14 11:33	0° M			1892 Nov 09 09:15	0° H	
	1887 Dec 06 08:34	0° L		asc. node	1892 Dec 27 23:03	0° Y	
	1888 Feb 27 10:55	0° M			1893 Jan 08 21:34	7° Y 49'35	
retrograde	1888 Mar 04 11:15	0° M 12'56			1893 Feb 11 08:23	0° B	
	1888 Mar 10 07:54	30° R L			1893 Mar 28 18:49	0° II	
opposition	1888 Apr 11 06:16	21° L 47'16	2°13'02		1893 May 14 01:59	0° S	
greatest brilliancy	1888 Apr 11 23:36	21° L 30'45	-1.5m	evening set	1893 Jun 30 04:04	0° Q	
min. Earth dist.	1888 Apr 17 08:33	19° L 28'03	0.60501 AU		1893 Jul 20 11:41	12° Q 52'13	
direct	1888 May 22 04:41	11° L 56'07		max. Earth dist.	1893 Aug 16 12:07	0° M	
					1893 Aug 28 21:57	7° M 53'38	2.67329 AU

conjunction	1893 Sep 04 09:00	12° \cap 00'50	1°03'32	asc. node	1898 Aug 31 18:37	28° Π 41'58	
minimum elong	1893 Sep 04 09:48	12° \cap 02'06	1°03'31		1898 Sep 02 21:35	0° \ominus	
	1893 Oct 02 09:37	0° $\underline{\Delta}$			1898 Oct 30 22:19	0° Ω	
morning rise	1893 Oct 18 16:47	10° $\underline{\Delta}$ 33'49		retrograde	1898 Dec 09 20:00	8° Ω 40'46	
	1893 Nov 17 07:50	0° \mathbb{M}			1899 Jan 15 19:12	30° $\mathbb{R}\ominus$	
	1894 Jan 01 01:49	0° \mathcal{A}		min. Earth dist.	1899 Jan 15 22:37	29° \ominus 56'35	0.65070 AU
desc. node	1894 Jan 26 16:49	17° \mathcal{A} 32'16		opposition	1899 Jan 18 23:32	28° \ominus 43'27	4°21'49
	1894 Feb 13 16:37	0° $\overline{\mathcal{C}}$		greatest brilliancy	1899 Jan 18 07:31	28° \ominus 59'32	-1.3m
	1894 Mar 28 10:33	0° \approx		direct	1899 Feb 27 05:54	19° \ominus 25'07	
	1894 May 09 23:34	0° \mathcal{H}			1899 Apr 15 10:23	0° Ω	
	1894 Jun 23 07:33	0° Υ			1899 Jun 16 04:25	0° \cap	
	1894 Aug 19 10:01	0° \mathcal{B}			1899 Aug 05 23:06	0° $\underline{\Delta}$	
retrograde	1894 Sep 16 00:15	5° \mathcal{B} 03'48		desc. node	1899 Sep 18 13:27	28° $\underline{\Delta}$ 12'50	
min. Earth dist.	1894 Oct 13 00:05	0° \mathcal{B} 07'38	0.43098 AU		1899 Sep 21 05:12	0° \mathbb{M}	
	1894 Oct 13 09:38	30° $\mathbb{R}\Upsilon$			1899 Nov 03 06:05	0° \mathcal{A}	
opposition	1894 Oct 20 22:16	27° Υ 31'05	-2°-11'-56	evening set	1899 Nov 19 00:18	11° \mathcal{A} 27'51	
greatest brilliancy	1894 Oct 20 01:25	27° Υ 48'22	-2.5m	max. Earth dist.	1899 Dec 08 13:43	26° \mathcal{A} 01'10	2.40717 AU
direct	1894 Nov 21 14:34	21° Υ 20'58			1899 Dec 13 20:16	0° $\overline{\mathcal{C}}$	
asc. node	1894 Nov 26 21:11	21° Υ 31'55					
	1894 Dec 31 08:13	0° \mathcal{B}		conjunction	1900 Jan 16 04:49	25° $\overline{\mathcal{C}}$ 38'40	-1°00'-5
	1895 Mar 01 21:13	0° Π		minimum elong	1900 Jan 16 03:01	25° $\overline{\mathcal{C}}$ 35'10	1°00'05
	1895 Apr 22 04:57	0° \ominus			1900 Jan 21 18:50	0° \approx	
	1895 Jun 10 16:15	0° Ω			1900 Feb 28 22:15	0° \mathcal{H}	
	1895 Jul 29 02:27	0° \cap		morning rise	1900 Mar 25 00:40	18° \mathcal{H} 57'36	
evening set	1895 Aug 26 13:46	18° \cap 00'41			1900 Apr 08 03:58	0° Υ	
	1895 Sep 14 05:14	0° $\underline{\Delta}$			1900 May 17 09:05	0° \mathcal{B}	
max. Earth dist.	1895 Sep 21 20:54	4° $\underline{\Delta}$ 58'23	2.62923 AU		1900 Jun 27 09:21	0° Π	
				asc. node	1900 Jul 19 18:26	15° Π 38'43	
conjunction	1895 Oct 11 08:38	17° $\underline{\Delta}$ 46'52	0°35'22		1900 Aug 10 01:15	0° \ominus	
minimum elong	1895 Oct 11 09:41	17° $\underline{\Delta}$ 48'37	0°35'21		1900 Sep 26 18:08	0° Ω	
	1895 Oct 29 15:14	0° \mathbb{M}			1900 Nov 23 08:41	0° \cap	
morning rise	1895 Nov 26 13:48	19° \mathbb{M} 05'41		retrograde	1901 Jan 13 07:04	12° \cap 32'50	
	1895 Dec 12 04:48	0° \mathcal{A}		opposition	1901 Feb 22 06:11	2° \cap 57'27	4°24'55
desc. node	1895 Dec 14 16:10	1° \mathcal{A} 44'33		greatest brilliancy	1901 Feb 22 09:18	2° \cap 54'21	-1.2m
	1896 Jan 23 00:38	0° $\overline{\mathcal{C}}$		min. Earth dist.	1901 Feb 23 02:33	2° \cap 37'10	0.67741 AU
	1896 Mar 03 11:09	0° \approx			1901 Mar 01 19:28	30° $\mathbb{R}\Omega$	
	1896 Apr 12 01:36	0° \mathcal{H}		direct	1901 Apr 04 06:52	23° Ω 03'48	
	1896 May 21 16:47	0° Υ			1901 May 11 06:05	0° \cap	
	1896 Jul 01 17:53	0° \mathcal{B}			1901 Jul 13 19:59	0° $\underline{\Delta}$	
	1896 Aug 16 02:37	0° Π		desc. node	1901 Aug 06 12:26	13° $\underline{\Delta}$ 59'36	
asc. node	1896 Oct 13 19:12	26° Π 54'25			1901 Aug 31 18:13	0° \mathbb{M}	
retrograde	1896 Nov 02 06:48	29° Π 24'34			1901 Oct 14 12:48	0° \mathcal{A}	
min. Earth dist.	1896 Dec 04 13:40	22° Π 20'34	0.56076 AU		1901 Nov 24 04:44	0° $\overline{\mathcal{C}}$	
greatest brilliancy	1896 Dec 10 06:45	20° Π 07'10	-1.8m		1902 Jan 01 23:54	0° \approx	
opposition	1896 Dec 11 05:42	19° Π 44'48	2°36'44	evening set	1902 Jan 20 22:06	14° \approx 54'49	
direct	1897 Jan 16 08:18	11° Π 34'00			1902 Feb 08 23:53	0° \mathcal{H}	
	1897 Mar 22 00:19	0° \ominus			1902 Mar 19 04:31	0° Υ	
	1897 May 18 11:51	0° Ω					
	1897 Jul 08 15:02	0° \cap		conjunction	1902 Mar 30 00:47	8° Υ 23'34	0°-42'-1
	1897 Aug 25 16:44	0° $\underline{\Delta}$		minimum elong	1902 Mar 30 03:55	8° Υ 29'36	0°42'00
evening set	1897 Oct 03 09:22	25° $\underline{\Delta}$ 25'24			1902 Apr 27 10:49	0° \mathcal{B}	
	1897 Oct 10 03:59	0° \mathbb{M}		max. Earth dist.	1902 May 20 08:15	16° \mathcal{B} 55'38	2.43066 AU
max. Earth dist.	1897 Oct 20 03:41	6° \mathbb{M} 49'01	2.53462 AU	morning rise	1902 Jun 04 08:27	27° \mathcal{B} 46'14	
desc. node	1897 Oct 31 14:47	14° \mathbb{M} 44'55		asc. node	1902 Jun 06 17:01	29° \mathcal{B} 27'21	
					1902 Jun 07 11:20	0° Π	
conjunction	1897 Nov 21 12:11	29° \mathbb{M} 29'30	0°-12'-33		1902 Jul 20 17:43	0° \ominus	
minimum elong	1897 Nov 21 11:36	29° \mathbb{M} 28'28	0°12'33		1902 Sep 04 14:47	0° Ω	
behind sun begin	1897 Nov 20 21:45	29° \mathbb{M} 03'44			1902 Oct 23 22:54	0° \cap	
behind sun end	1897 Nov 22 01:28	29° \mathbb{M} 53'13			1902 Dec 20 03:33	0° $\underline{\Delta}$	
	1897 Nov 22 05:15	0° \mathcal{A}		retrograde	1903 Feb 18 15:34	16° $\underline{\Delta}$ 17'11	
	1898 Jan 02 04:38	0° $\overline{\mathcal{C}}$		opposition	1903 Mar 29 07:31	7° $\underline{\Delta}$ 26'28	3°07'50
morning rise	1898 Jan 13 20:55	8° $\overline{\mathcal{C}}$ 46'56		greatest brilliancy	1903 Mar 30 00:44	7° $\underline{\Delta}$ 09'45	-1.4m
	1898 Feb 10 15:16	0° \approx		min. Earth dist.	1903 Apr 02 23:40	5° $\underline{\Delta}$ 37'40	0.63803 AU
	1898 Mar 21 05:46	0° \mathcal{H}			1903 Apr 19 20:47	30° $\mathbb{R}\cap$	
	1898 Apr 28 20:10	0° Υ		direct	1903 May 09 15:26	27° \cap 26'12	
	1898 Jun 07 09:34	0° \mathcal{B}			1903 May 30 17:20	0° $\underline{\Delta}$	
	1898 Jul 19 02:07	0° Π		desc. node	1903 Jun 24 10:53	8° $\underline{\Delta}$ 06'17	

	1903 Aug 06 16:27	0°♌		morning rise	1908 Oct 05 17:17	27°♏05'29	
	1903 Sep 22 13:52	0°♍			1908 Oct 10 06:05	0°♎	
	1903 Nov 03 05:31	0°♎			1908 Nov 25 14:18	0°♌	
	1903 Dec 12 09:56	0°♏			1909 Jan 10 03:55	0°♍	
	1904 Jan 19 15:50	0°♐		desc. node	1909 Feb 13 08:57	22°♍48'51	
	1904 Feb 27 03:12	0°♑			1909 Feb 24 02:13	0°♎	
evening set	1904 Mar 31 11:41	25°♑20'05			1909 Apr 09 20:34	0°♏	
	1904 Apr 06 18:05	0°♒			1909 May 25 22:53	0°♐	
asc. node	1904 Apr 23 16:05	12°♒26'06			1909 Jul 21 08:36	0°♑	
	1904 May 18 03:35	0°♓		retrograde	1909 Aug 23 02:21	6°♑47'42	
				min. Earth dist.	1909 Sep 18 18:58	2°♑20'56	0.38947 AU
conjunction	1904 May 30 17:06	8°♓49'15	0°22'49	greatest brilliancy	1909 Sep 23 07:19	1°♑02'12	-2.8m
minimum elong	1904 May 30 15:48	8°♓47'00	0°22'48	opposition	1909 Sep 24 10:09	0°♑42'38	-4°-54'-26
	1904 Jun 30 14:56	0°♈			1909 Sep 26 21:20	30°♒♐	
max. Earth dist.	1904 Jul 01 20:40	0°♈50'03	2.55988 AU	direct	1909 Oct 24 07:15	25°♒26'53	
morning rise	1904 Jul 23 16:09	15°♈21'16			1909 Nov 20 20:47	0°♑	
	1904 Aug 15 03:22	0°♉		asc. node	1909 Dec 14 12:39	9°♑14'17	
	1904 Oct 01 13:52	0°♊			1910 Jan 23 01:53	0°♒	
	1904 Nov 20 06:24	0°♋			1910 Mar 14 07:17	0°♓	
	1905 Jan 13 19:26	0°♌			1910 May 01 20:49	0°♈	
retrograde	1905 Apr 02 20:46	25°♌06'31			1910 Jun 19 03:30	0°♉	
opposition	1905 May 08 20:07	17°♌32'06	0°07'09		1910 Aug 06 00:58	0°♊	
greatest brilliancy	1904 Oct 16 03:32	8°♊58'03	-3.9m	evening set	1910 Aug 13 05:40	4°♊32'59	
desc. node	1905 May 11 09:33	16°♌36'19		max. Earth dist.	1910 Sep 13 05:46	24°♊20'18	2.65277 AU
min. Earth dist.	1905 May 16 18:23	14°♌40'25	0.53660 AU		1910 Sep 22 00:14	0°♋	
direct	1905 Jun 17 07:24	8°♌19'33					
	1905 Aug 21 19:33	0°♌		conjunction	1910 Sep 27 17:00	3°♋41'49	0°48'56
	1905 Oct 08 00:06	0°♍		minimum elong	1910 Sep 27 18:08	3°♋43'40	0°48'55
	1905 Nov 18 04:15	0°♎			1910 Nov 06 13:39	0°♌	
	1905 Dec 27 13:50	0°♏		morning rise	1910 Nov 11 17:22	3°♌27'44	
	1906 Feb 04 23:45	0°♑			1910 Dec 20 12:16	0°♍	
asc. node	1906 Mar 11 15:13	25°♑43'45		desc. node	1911 Jan 01 07:16	8°♍14'34	
	1906 Mar 17 11:54	0°♒			1911 Jan 31 21:30	0°♎	
	1906 Apr 28 17:00	0°♓			1911 Mar 14 00:07	0°♏	
evening set	1906 May 25 15:23	18°♓27'56			1911 Apr 23 08:28	0°♐	
	1906 Jun 11 19:39	0°♈			1911 Jun 02 21:47	0°♑	
					1911 Jul 15 16:01	0°♒	
conjunction	1906 Jul 15 19:57	22°♈22'39	1°01'07		1911 Sep 05 15:20	0°♓	
minimum elong	1906 Jul 15 18:48	22°♈20'48	1°01'08	retrograde	1911 Oct 18 08:37	10°♓57'47	
	1906 Jul 27 14:13	0°♉		asc. node	1911 Nov 01 12:43	9°♓28'14	
max. Earth dist.	1906 Jul 29 05:38	1°♉03'36	2.64483 AU	min. Earth dist.	1911 Nov 17 11:09	4°♓42'55	0.51120 AU
morning rise	1906 Aug 31 23:38	22°♉40'05		opposition	1911 Nov 25 04:59	1°♓48'53	1°12'21
	1906 Sep 12 12:53	0°♊		greatest brilliancy	1911 Nov 24 15:17	2°♓01'44	-2.1m
	1906 Oct 30 04:26	0°♋			1911 Nov 30 04:08	30°♒♑	
	1906 Dec 17 12:07	0°♌		direct	1911 Dec 29 16:25	24°♑18'13	
desc. node	1907 Feb 05 09:29	0°♍			1912 Jan 30 21:02	0°♒	
	1907 Mar 29 09:54	28°♍22'11			1912 Apr 05 11:31	0°♓	
	1907 Apr 01 18:32	0°♎			1912 May 28 08:16	0°♈	
retrograde	1907 Jun 05 06:42	18°♎53'55			1912 Jul 17 02:42	0°♉	
opposition	1907 Jul 06 15:28	13°♎23'24	-5°-14'-26		1912 Sep 02 17:03	0°♊	
greatest brilliancy	1907 Jul 08 05:36	12°♎55'16	-2.6m	evening set	1912 Sep 18 18:56	10°♊27'29	
min. Earth dist.	1907 Jul 13 04:42	11°♎27'56	0.40758 AU	max. Earth dist.	1912 Oct 08 17:59	23°♊41'28	2.57707 AU
direct	1907 Aug 09 03:28	6°♎58'50			1912 Oct 18 02:39	0°♋	
	1907 Oct 13 14:29	0°♏					
	1907 Nov 29 04:30	0°♐		conjunction	1912 Nov 05 02:17	12°♌18'27	0°07'49
	1908 Jan 11 04:39	0°♑		minimum elong	1912 Nov 05 02:36	12°♌18'58	0°07'49
asc. node	1908 Jan 27 13:04	11°♑28'32		behind sun begin	1912 Nov 04 08:32	11°♌47'46	
	1908 Feb 23 03:25	0°♒		behind sun end	1912 Nov 05 20:39	12°♌50'12	
	1908 Apr 07 04:06	0°♓		desc. node	1912 Nov 18 06:18	21°♌28'53	
	1908 May 22 14:14	0°♈			1912 Nov 30 07:40	0°♍	
evening set	1908 Jul 06 12:25	28°♈56'56		morning rise	1912 Dec 24 18:41	17°♍37'59	
	1908 Jul 08 03:54	0°♉			1913 Jan 10 13:43	0°♎	
max. Earth dist.	1908 Aug 21 01:48	27°♉57'37	2.67612 AU		1913 Feb 19 08:00	0°♏	
					1913 Mar 30 05:53	0°♐	
conjunction	1908 Aug 22 05:24	28°♉41'31	1°08'03		1913 May 08 03:00	0°♑	
minimum elong	1908 Aug 22 05:45	28°♉42'05	1°08'03		1913 Jun 17 00:38	0°♒	
	1908 Aug 24 06:44	0°♊			1913 Jul 29 10:31	0°♓	

	1913 Sep 15 17:18	0°☿			1918 Dec 20 09:05	0°♊		
asc. node	1913 Sep 18 11:30	1°☿30'53			1919 Jan 27 11:20	0°♋		
retrograde	1913 Nov 26 21:11	24°☿33'53		evening set	1919 Mar 06 04:06	29°♋31'33		
min. Earth dist.	1914 Jan 01 05:55	16°☿25'09	0.62244 AU		1919 Mar 06 18:48	0°♌		
opposition	1914 Jan 05 18:35	14°☿36'44	3°56'09		1919 Apr 15 05:00	0°♍		
greatest brilliancy	1914 Jan 04 20:56	14°☿58'21	-1.5m					
direct	1914 Feb 12 23:35	5°☿40'15		conjunction	1919 May 09 18:11	18°♍03'21	0°-1'-1	
	1914 May 01 20:30	0°♌		minimum elong	1919 May 09 18:18	18°♍03'32	0°01'02	
	1914 Jun 26 04:48	0°♍		behind sun begin	1919 May 08 16:41	17°♍17'08		
	1914 Aug 14 14:10	0°♎		behind sun end	1919 May 10 19:54	18°♍49'54		
	1914 Sep 29 10:38	0°♏		asc. node	1919 May 11 08:06	19°♍11'58		
desc. node	1914 Oct 06 05:16	4°♏36'23			1919 May 26 09:38	0°♐		
evening set	1914 Oct 31 09:23	22°♏06'53		max. Earth dist.	1919 Jun 19 10:05	16°♐49'22	2.51323 AU	
	1914 Nov 11 10:46	0°♑		morning rise	1919 Jul 06 23:28	28°♐49'26		
max. Earth dist.	1914 Nov 15 03:33	2°♑39'51	2.45797 AU		1919 Jul 08 17:14	0°♑		
	1914 Dec 22 03:48	0°♒			1919 Aug 23 06:17	0°♒		
					1919 Oct 10 03:53	0°♓		
conjunction	1914 Dec 24 04:19	1°♒31'33	0°-44'-47		1919 Nov 30 12:10	0°♈		
minimum elong	1914 Dec 24 02:15	1°♒27'40	0°44'47		1920 Jan 31 23:18	0°♉		
	1915 Jan 30 06:12	0°♊		retrograde	1920 Mar 15 03:04	9°♉05'57		
morning rise	1915 Feb 24 01:29	19°♊24'26		opposition	1920 Apr 21 08:43	0°♉56'16	1°33'01	
	1915 Mar 09 12:56	0°♋		greatest brilliancy	1920 Apr 21 23:07	0°♉42'45	-1.6m	
greatest brilliancy	1915 Mar 17 20:05	6°♋31'24	1.2m		1920 Apr 23 20:29	30°♊		
	1915 Apr 16 20:42	0°♌		min. Earth dist.	1920 Apr 28 04:29	28°♊22'47	0.58306 AU	
	1915 May 26 03:08	0°♍		desc. node	1920 May 28 01:59	21°♊20'33		
	1915 Jul 06 06:23	0°♎		direct	1920 May 31 22:25	21°♊14'39		
asc. node	1915 Aug 06 09:51	21°♎26'47			1920 Jul 10 18:14	0°♏		
	1915 Aug 19 09:10	0°☿			1920 Sep 04 20:27	0°♑		
	1915 Oct 07 20:48	0°♌			1920 Oct 18 13:22	0°♒		
retrograde	1915 Dec 31 22:29	29°♌49'24			1920 Nov 27 13:38	0°♊		
min. Earth dist.	1916 Feb 09 10:26	20°♌18'42	0.67485 AU		1921 Jan 05 07:39	0°♋		
opposition	1916 Feb 10 02:39	20°♌02'29	4°33'20		1921 Feb 13 05:21	0°♌		
greatest brilliancy	1916 Feb 09 22:07	20°♌07'02	-1.2m		1921 Mar 25 06:26	0°♍		
direct	1916 Mar 21 14:43	10°♌19'34		asc. node	1921 Mar 28 06:26	2°♍11'56		
	1916 May 28 18:42	0°♍		evening set	1921 May 06 03:24	0°♎02'54		
	1916 Jul 23 05:23	0°♎			1921 May 06 01:45	0°♏		
desc. node	1916 Aug 23 03:48	19°♎10'00			1921 Jun 18 20:34	0°☿		
	1916 Sep 08 17:43	0°♏						
	1916 Oct 22 02:57	0°♑		conjunction	1921 Jun 29 06:26	6°☿56'46	0°50'20	
	1916 Dec 01 17:10	0°♒		minimum elong	1921 Jun 29 04:51	6°☿54'09	0°50'19	
evening set	1916 Dec 25 02:15	17°♒56'57		max. Earth dist.	1921 Jul 19 10:16	20°☿13'41	2.61785 AU	
	1917 Jan 09 12:55	0°♊			1921 Aug 03 11:01	0°♌		
	1917 Feb 16 13:33	0°♋		morning rise	1921 Aug 17 11:10	9°♌01'08		
					1921 Sep 19 11:40	0°♍		
conjunction	1917 Feb 28 21:09	9°♋43'42	-1°00'-26		1921 Nov 06 16:13	0°♎		
minimum elong	1917 Feb 28 23:25	9°♋48'10	1°00'26		1921 Dec 26 11:48	0°♏		
	1917 Mar 26 17:40	0°♌			1922 Feb 18 16:15	0°♑		
max. Earth dist.	1917 Apr 10 19:47	11°♌40'31	2.38097 AU	desc. node	1922 Apr 15 00:45	22°♑16'02		
	1917 May 04 22:14	0°♍		retrograde	1922 May 08 06:09	25°♑16'20		
morning rise	1917 May 10 03:46	3°♍54'53		opposition	1922 Jun 10 14:10	18°♑53'23	-2°-57'-16	
	1917 Jun 14 20:57	0°♎		greatest brilliancy	1922 Jun 11 20:52	18°♑28'19	-2.3m	
asc. node	1917 Jun 23 09:45	6°♎03'26		min. Earth dist.	1922 Jun 18 22:37	16°♑10'21	0.45595 AU	
	1917 Jul 28 04:00	0°☿		direct	1922 Jul 17 02:12	11°♑06'08		
	1917 Sep 12 10:52	0°♌			1922 Sep 13 13:02	0°♒		
	1917 Nov 02 11:00	0°♍			1922 Oct 30 18:54	0°♊		
	1918 Jan 11 08:55	0°♎			1922 Dec 11 13:10	0°♋		
retrograde	1918 Feb 03 23:01	3°♎03'54			1923 Jan 21 10:07	0°♌		
	1918 Feb 25 19:00	30°♏		asc. node	1923 Feb 13 06:05	16°♏34'17		
opposition	1918 Mar 15 06:44	23°♏52'48	3°47'41		1923 Mar 04 00:41	0°♍		
greatest brilliancy	1918 Mar 15 20:00	23°♏39'45	-1.3m		1923 Apr 16 02:54	0°♎		
min. Earth dist.	1918 Mar 18 11:27	22°♏37'25	0.66130 AU		1923 May 30 21:19	0°☿		
direct	1918 Apr 25 16:44	13°♏50'58		evening set	1923 Jun 21 18:57	14°☿19'27		
	1918 Jun 23 19:19	0°♎			1923 Jul 16 01:25	0°♌		
desc. node	1918 Jul 11 03:02	8°♎35'19						
	1918 Aug 17 04:16	0°♏		conjunction	1923 Aug 08 19:35	15°♌12'24	1°08'43	
	1918 Oct 01 07:42	0°♑		minimum elong	1923 Aug 08 19:23	15°♌12'05	1°08'44	
	1918 Nov 11 10:13	0°♒		max. Earth dist.	1923 Aug 13 01:00	17°♌54'11	2.67039 AU	

	1923 Sep 01 00:57	0°♈		min. Earth dist.	1928 Dec 15 14:28	1°♏49'11	0.58497 AU
morning rise	1923 Sep 22 23:14	13°♈56'53			1928 Dec 20 05:23	30°♏II	
	1923 Oct 18 04:17	0°♏		opposition	1928 Dec 21 13:35	29°♏28'15	3°12'28
	1923 Dec 04 02:11	0°♏		greatest brilliancy	1928 Dec 20 13:24	29°♏52'05	-1.7m
	1924 Jan 19 19:05	0°♏		direct	1929 Jan 27 12:02	20°♏59'18	
desc. node	1924 Mar 02 00:08	26°♏58'14			1929 Mar 10 23:18	0°♏	
	1924 Mar 06 19:02	0°♏			1929 May 13 02:32	0°♏	
	1924 Apr 24 15:58	0°♏			1929 Jul 04 10:03	0°♏	
	1924 Jun 24 16:27	0°♏			1929 Aug 21 21:51	0°♏	
retrograde	1924 Jul 24 11:01	5°♏18'37			1929 Oct 06 12:27	0°♏	
opposition	1924 Aug 23 17:02	0°♏15'01	-6°-44'-20	evening set	1929 Oct 13 18:47	4°♏56'47	
min. Earth dist.	1924 Aug 22 23:45	0°♏26'29	0.37285 AU	desc. node	1929 Oct 22 20:53	11°♏11'57	
greatest brilliancy	1924 Aug 23 15:27	0°♏16'04	-2.9m	max. Earth dist.	1929 Oct 29 04:14	15°♏34'59	2.50824 AU
	1924 Aug 24 15:39	30°♏			1929 Nov 18 13:29	0°♏	
direct	1924 Sep 22 09:15	25°♏19'50					
	1924 Oct 19 18:42	0°♏		conjunction	1929 Dec 03 07:11	10°♏39'10	0°-24'-41
	1924 Dec 19 11:09	0°♏		minimum elong	1929 Dec 03 06:01	10°♏37'02	0°24'41
	1924 Dec 31 05:36	7°♏08'51			1929 Dec 29 10:45	0°♏	
asc. node	1925 Feb 05 10:17	0°♏		morning rise	1930 Jan 28 08:40	22°♏44'36	
	1925 Mar 24 00:42	0°♏			1930 Feb 06 18:21	0°♏	
	1925 May 09 22:44	0°♏			1930 Mar 17 05:55	0°♏	
	1925 Jun 26 09:07	0°♏			1930 Apr 24 17:27	0°♏	
evening set	1925 Jul 29 20:39	21°♏07'30			1930 Jun 03 03:15	0°♏	
	1925 Aug 12 21:12	0°♏			1930 Jul 14 12:54	0°♏	
max. Earth dist.	1925 Sep 04 05:04	14°♏12'29	2.66824 AU	asc. node	1930 Aug 23 02:26	26°♏35'12	
					1930 Aug 28 11:27	0°♏	
conjunction	1925 Sep 13 11:31	20°♏08'26	0°59'09		1930 Oct 20 14:43	0°♏	
minimum elong	1925 Sep 13 12:29	20°♏10'00	0°59'09	retrograde	1930 Dec 18 13:45	16°♏48'44	
	1925 Sep 28 19:01	0°♏		min. Earth dist.	1931 Jan 25 14:13	7°♏47'01	0.66214 AU
morning rise	1925 Oct 27 21:40	18°♏58'20		opposition	1931 Jan 27 19:07	6°♏54'00	4°29'51
	1925 Nov 13 14:02	0°♏		greatest brilliancy	1931 Jan 27 06:56	7°♏06'12	-1.3m
	1925 Dec 28 00:35	0°♏			1931 Feb 16 14:28	30°♏	
desc. node	1926 Jan 17 22:47	14°♏27'01		direct	1931 Mar 08 13:52	27°♏25'48	
	1926 Feb 09 03:34	0°♏			1931 Mar 30 03:47	0°♏	
	1926 Mar 23 04:39	0°♏			1931 Jun 10 14:58	0°♏	
	1926 May 03 17:03	0°♏			1931 Aug 01 16:37	0°♏	
	1926 Jun 15 00:50	0°♏		desc. node	1931 Sep 09 20:08	24°♏59'10	
	1926 Aug 01 09:14	0°♏			1931 Sep 17 08:43	0°♏	
retrograde	1926 Sep 29 05:43	19°♏27'26			1931 Oct 30 12:46	0°♏	
min. Earth dist.	1926 Oct 27 05:06	14°♏04'09	0.45882 AU	evening set	1931 Dec 02 04:25	24°♏00'17	
opposition	1926 Nov 04 09:30	11°♏12'37	0°-47'-2		1931 Dec 10 03:10	0°♏	
greatest brilliancy	1926 Nov 04 00:47	11°♏20'16	-2.4m	max. Earth dist.	1932 Jan 01 23:24	17°♏30'10	2.38278 AU
asc. node	1926 Nov 18 04:10	6°♏56'11			1932 Jan 18 00:34	0°♏	
direct	1926 Dec 07 02:25	4°♏31'24					
	1927 Feb 22 00:43	0°♏		conjunction	1932 Feb 01 05:31	11°♏09'12	-1°-4'-22
	1927 Apr 17 01:29	0°♏		minimum elong	1932 Feb 01 04:50	11°♏07'51	1°04'22
	1927 Jun 06 11:36	0°♏			1932 Feb 25 02:36	0°♏	
	1927 Jul 25 07:47	0°♏			1932 Apr 03 07:02	0°♏	
evening set	1927 Sep 04 21:56	26°♏20'03		morning rise	1932 Apr 11 07:47	6°♏14'10	
	1927 Sep 10 14:19	0°♏			1932 May 12 10:53	0°♏	
max. Earth dist.	1927 Sep 28 19:20	11°♏52'23	2.61267 AU		1932 Jun 22 09:19	0°♏	
				asc. node	1932 Jul 10 00:30	12°♏25'08	
conjunction	1927 Oct 21 02:09	26°♏40'58	0°26'01		1932 Aug 04 19:52	0°♏	
minimum elong	1927 Oct 21 03:02	26°♏42'26	0°25'59		1932 Sep 20 19:43	0°♏	
	1927 Oct 26 00:20	0°♏			1932 Nov 13 21:25	0°♏	
desc. node	1927 Dec 05 21:27	28°♏11'30		retrograde	1933 Jan 21 01:28	20°♏17'01	
morning rise	1927 Dec 07 06:55	29°♏10'27		opposition	1933 Mar 01 20:28	10°♏49'21	4°14'31
	1927 Dec 08 11:01	0°♏		greatest brilliancy	1933 Mar 02 03:33	10°♏42'20	-1.2m
	1928 Jan 19 02:02	0°♏		min. Earth dist.	1933 Mar 03 13:00	10°♏09'11	0.67460 AU
	1928 Feb 28 06:30	0°♏		direct	1933 Apr 12 02:17	0°♏51'39	
	1928 Apr 07 14:27	0°♏			1933 Jul 06 22:02	0°♏	
	1928 May 16 21:35	0°♏		desc. node	1933 Jul 27 18:30	11°♏46'48	
	1928 Jun 26 09:04	0°♏			1933 Aug 26 06:34	0°♏	
	1928 Aug 09 04:09	0°♏			1933 Oct 09 11:35	0°♏	
	1928 Oct 03 03:46	0°♏			1933 Nov 19 07:18	0°♏	
asc. node	1928 Oct 05 03:26	0°♏48'25			1933 Dec 28 03:43	0°♏	
retrograde	1928 Nov 12 04:13	9°♏17'23			1934 Feb 04 04:13	0°♏	

evening set	1934 Feb 05 19:28	1° X 17'32			1939 Jan 29 09:49	0° X		
	1934 Mar 14 09:08	0° Y		desc. node	1939 Mar 19 15:17	29° X 03'42		
					1939 Mar 21 07:25	0° Z		
conjunction	1934 Apr 14 13:54	23° Y 55'34	0°-27'-39		1939 May 25 00:19	0° \approx		
minimum elong	1934 Apr 14 16:09	23° Y 59'48	0°27'38	retrograde	1939 Jun 22 18:34	4° \approx 42'22		
	1934 Apr 22 15:40	0° X			1939 Jul 21 19:31	30° R Z		
asc. node	1934 May 28 00:25	25° X 56'50		opposition	1939 Jul 23 08:03	29° Z 34'48	-6°-17'-55	
max. Earth dist.	1934 Jun 02 11:06	29° X 50'39	2.46054 AU	greatest brilliancy	1939 Jul 24 14:35	29° Z 13'40	-2.8m	
	1934 Jun 02 16:21	0° II		min. Earth dist.	1939 Jul 27 20:46	28° Z 19'52	0.38789 AU	
morning rise	1934 Jun 17 00:15	10° II 07'43		direct	1939 Aug 23 23:58	23° Z 55'06		
	1934 Jul 15 21:33	0° S			1939 Sep 24 01:13	0° \approx		
	1934 Aug 30 13:43	0° Q			1939 Nov 19 15:56	0° X		
	1934 Oct 18 04:59	0° M			1940 Jan 04 00:05	0° Y		
	1934 Dec 11 09:32	0° A		asc. node	1940 Jan 17 21:03	9° Y 26'27		
retrograde	1935 Feb 27 12:11	24° A 37'00			1940 Feb 17 01:54	0° X		
opposition	1935 Apr 06 17:34	15° A 59'21	2°37'48		1940 Apr 01 18:41	0° II		
greatest brilliancy	1935 Apr 07 11:16	15° A 42'20	-1.5m		1940 May 17 14:45	0° S		
min. Earth dist.	1935 Apr 12 04:59	13° A 53'13	0.62102 AU		1940 Jul 03 10:32	0° Q		
direct	1935 May 17 21:37	6° A 03'08		evening set	1940 Jul 15 03:50	7° Q 27'11		
desc. node	1935 Jun 14 17:00	10° A 26'24			1940 Aug 19 15:58	0° M		
	1935 Jul 29 17:32	0° M		max. Earth dist.	1940 Aug 26 06:42	4° M 12'23	2.67559 AU	
	1935 Sep 16 12:59	0° X						
	1935 Oct 28 18:22	0° Z		conjunction	1940 Aug 30 08:30	6° M 48'03	1°05'51	
	1935 Dec 07 04:33	0° \approx		minimum elong	1940 Aug 30 09:07	6° M 49'03	1°05'52	
	1936 Jan 14 13:59	0° X			1940 Oct 05 14:21	0° A		
	1936 Feb 22 04:09	0° Y		morning rise	1940 Oct 13 16:47	5° A 13'29		
	1936 Apr 01 21:30	0° X			1940 Nov 20 17:16	0° M		
asc. node	1936 Apr 13 23:57	8° X 53'48			1941 Jan 04 19:42	0° X		
evening set	1936 Apr 14 02:51	8° X 59'06		desc. node	1941 Feb 03 14:26	20° X 10'12		
	1936 May 13 09:17	0° II			1941 Feb 17 23:32	0° Z		
					1941 Apr 02 11:45	0° \approx		
conjunction	1936 Jun 11 00:01	19° II 52'47	0°34'21		1941 May 16 05:05	0° X		
minimum elong	1936 Jun 10 22:25	19° II 50'02	0°34'20		1941 Jul 02 05:17	0° Y		
	1936 Jun 25 21:53	0° S		retrograde	1941 Sep 06 18:34	23° Y 43'12		
max. Earth dist.	1936 Jul 08 17:15	8° S 34'12	2.58252 AU	min. Earth dist.	1941 Oct 03 07:26	19° Y 04'11	0.41046 AU	
morning rise	1936 Aug 02 00:50	24° S 34'11		greatest brilliancy	1941 Oct 09 10:17	17° Y 09'50	-2.6m	
	1936 Aug 10 09:43	0° Q		opposition	1941 Oct 10 12:47	16° Y 49'03	-3°-22'-13	
	1936 Sep 26 14:51	0° M		direct	1941 Nov 10 08:33	11° Y 04'28		
	1936 Nov 14 14:52	0° A		asc. node	1941 Dec 04 21:07	14° Y 42'34		
	1937 Jan 05 20:39	0° M			1942 Jan 11 22:20	0° X		
	1937 Mar 13 03:16	0° X			1942 Mar 07 08:04	0° II		
retrograde	1937 Apr 14 14:42	5° X 32'01			1942 Apr 26 06:18	0° S		
desc. node	1937 May 01 16:12	3° X 43'01			1942 Jun 14 03:55	0° Q		
	1937 May 14 22:52	30° R M			1942 Aug 01 08:27	0° M		
opposition	1937 May 19 18:37	28° M 20'36	0°-53'-1	evening set	1942 Aug 21 10:07	12° M 41'09		
greatest brilliancy	1937 May 20 04:51	28° M 11'37	-2.0m		1942 Sep 17 10:10	0° A		
min. Earth dist.	1937 May 28 03:32	25° M 24'43	0.50854 AU	max. Earth dist.	1942 Sep 18 17:45	0° A 51'07	2.64078 AU	
direct	1937 Jun 27 10:08	19° M 31'54						
	1937 Aug 08 22:14	0° X		conjunction	1942 Oct 06 00:06	12° A 06'36	0°41'26	
	1937 Sep 30 09:08	0° Z		minimum elong	1942 Oct 06 01:14	12° A 08'27	0°41'26	
	1937 Nov 11 18:31	0° \approx			1942 Nov 01 22:36	0° M		
	1937 Dec 21 17:46	0° X		morning rise	1942 Nov 20 14:32	12° M 38'54		
	1938 Jan 30 12:44	0° Y			1942 Dec 15 16:51	0° X		
asc. node	1938 Mar 01 22:01	22° Y 26'51		desc. node	1942 Dec 22 13:54	4° X 49'27		
	1938 Mar 12 07:48	0° X			1943 Jan 26 19:10	0° Z		
	1938 Apr 23 18:39	0° II			1943 Mar 08 12:42	0° \approx		
evening set	1938 Jun 04 21:53	28° II 34'14			1943 Apr 17 10:25	0° X		
	1938 Jun 07 01:28	0° S			1943 May 27 09:25	0° Y		
	1938 Jul 22 22:26	0° Q			1943 Jul 07 23:05	0° X		
					1943 Aug 23 23:58	0° II		
conjunction	1938 Jul 24 19:08	1° Q 12'05	1°05'12	asc. node	1943 Oct 22 18:55	22° II 01'16		
minimum elong	1938 Jul 24 18:19	1° Q 10'46	1°05'12	retrograde	1943 Oct 28 05:16	22° II 13'56		
max. Earth dist.	1938 Aug 03 18:10	7° Q 36'32	2.65618 AU	min. Earth dist.	1943 Nov 28 13:14	15° II 31'36	0.53945 AU	
	1938 Sep 07 20:22	0° M		opposition	1943 Dec 05 18:31	12° II 45'25	2°05'03	
morning rise	1938 Sep 09 02:10	0° M 47'18		greatest brilliancy	1943 Dec 04 21:55	13° II 05'12	-1.9m	
	1938 Oct 25 06:20	0° A		direct	1944 Jan 10 04:37	4° II 51'25		
	1938 Dec 11 23:25	0° M			1944 Mar 28 09:54	0° S		

	1944 May 22 14:16	0°♈		conjunction	1949 Mar 17 10:14	26°♋29'56	0°-51'-25
	1944 Jul 12 02:54	0°♎		minimum elong	1949 Mar 17 13:28	26°♋36'13	0°51'24
	1944 Aug 29 00:23	0°♊			1949 Mar 21 22:02	0°♎	
evening set	1944 Sep 27 13:39	19°♊18'35			1949 Apr 30 02:33	0°♋	
	1944 Oct 13 12:09	0°♌		max. Earth dist.	1949 May 07 01:22	5°♋11'57	2.40685 AU
max. Earth dist.	1944 Oct 15 14:26	1°♌25'14	2.55454 AU	morning rise	1949 May 24 21:02	18°♋20'00	
desc. node	1944 Nov 08 12:51	17°♌54'13			1949 Jun 10 00:57	0°♌	
				asc. node	1949 Jun 13 16:51	2°♌36'36	
conjunction	1944 Nov 14 18:27	22°♌16'29	0°-3'-45		1949 Jul 23 05:54	0°♌	
minimum elong	1944 Nov 14 18:18	22°♌16'14	0°03'47		1949 Sep 07 04:51	0°♈	
behind sun begin	1944 Nov 13 21:50	21°♌40'14			1949 Oct 27 00:58	0°♎	
behind sun end	1944 Nov 15 14:47	22°♌52'15			1949 Dec 26 05:23	0°♊	
	1944 Nov 25 16:11	0°♏		retrograde	1950 Feb 12 05:48	11°♊02'25	
morning rise	1945 Jan 05 07:38	29°♏37'53		opposition	1950 Mar 23 05:44	2°♊01'59	3°25'54
	1945 Jan 05 19:31	0°♐		greatest brilliancy	1950 Mar 23 21:25	1°♊46'40	-1.3m
	1945 Feb 14 09:57	0°♑		min. Earth dist.	1950 Mar 27 06:10	0°♊27'56	0.64972 AU
	1945 Mar 25 03:43	0°♋			1950 Mar 28 11:05	30°♎	
	1945 May 02 20:29	0°♎		direct	1950 May 03 15:51	22°♎00'21	
	1945 Jun 11 11:52	0°♌			1950 Jun 11 20:26	0°♊	
	1945 Jul 23 08:59	0°♌		desc. node	1950 Jul 01 08:48	8°♊11'52	
	1945 Sep 07 20:56	0°♌			1950 Aug 10 16:47	0°♌	
asc. node	1945 Sep 08 17:59	0°♌31'10			1950 Sep 25 19:48	0°♏	
	1945 Nov 11 21:04	0°♈			1950 Nov 06 06:40	0°♐	
retrograde	1945 Dec 04 22:49	3°♈13'47			1950 Dec 15 08:59	0°♑	
	1945 Dec 26 15:05	30°♎			1951 Jan 22 13:05	0°♋	
min. Earth dist.	1946 Jan 10 07:34	24°♌45'02	0.63934 AU		1951 Mar 01 22:03	0°♎	
greatest brilliancy	1946 Jan 13 05:59	23°♌34'37	-1.4m	evening set	1951 Mar 21 08:09	14°♎53'58	
opposition	1946 Jan 14 00:52	23°♌15'44	4°13'13		1951 Apr 10 09:37	0°♋	
direct	1946 Feb 21 21:12	14°♌06'27		asc. node	1951 May 01 15:27	15°♋37'52	
	1946 Apr 22 19:31	0°♈			1951 May 21 15:32	0°♌	
	1946 Jun 20 08:31	0°♎					
	1946 Aug 09 13:17	0°♊		conjunction	1951 May 22 13:22	0°♌38'42	0°13'12
	1946 Sep 24 16:35	0°♌		minimum elong	1951 May 22 12:31	0°♌37'12	0°13'12
desc. node	1946 Sep 26 11:24	1°♌12'17		behind sun begin	1951 May 21 22:41	0°♌12'41	
	1946 Nov 06 18:22	0°♏		behind sun end	1951 May 23 02:21	1°♌01'42	
evening set	1946 Nov 11 05:16	3°♏12'29		max. Earth dist.	1951 Jun 27 11:35	25°♌35'24	2.53983 AU
max. Earth dist.	1946 Nov 27 09:08	15°♏00'42	2.42952 AU		1951 Jul 03 23:42	0°♌	
	1946 Dec 17 10:56	0°♐		morning rise	1951 Jul 17 07:03	8°♌55'26	
					1951 Aug 18 10:55	0°♈	
conjunction	1947 Jan 06 07:15	15°♐08'01	0°-54'-26		1951 Oct 05 00:20	0°♎	
minimum elong	1947 Jan 06 05:07	15°♐03'54	0°54'27		1951 Nov 24 06:11	0°♊	
	1947 Jan 25 11:44	0°♑			1952 Jan 20 01:33	0°♌	
	1947 Mar 04 16:46	0°♋		retrograde	1952 Mar 25 11:07	18°♌28'31	
morning rise	1947 Mar 12 15:25	6°♋15'15		opposition	1952 May 01 01:31	10°♌37'24	0°46'08
	1947 Apr 11 23:03	0°♎		greatest brilliancy	1952 May 01 09:58	10°♌29'37	-1.8m
	1947 May 21 03:39	0°♌		min. Earth dist.	1952 May 08 13:26	7°♌52'06	0.55825 AU
	1947 Jul 01 03:34	0°♌		desc. node	1952 May 18 07:20	4°♌38'28	
asc. node	1947 Jul 27 18:11	18°♌31'22		direct	1952 Jun 10 02:45	1°♌09'55	
	1947 Aug 13 21:26	0°♌			1952 Aug 27 18:53	0°♏	
	1947 Oct 01 02:30	0°♈			1952 Oct 12 04:45	0°♐	
	1947 Dec 01 11:44	0°♎			1952 Nov 21 19:39	0°♑	
retrograde	1948 Jan 08 13:49	7°♎36'36			1952 Dec 30 21:35	0°♋	
	1948 Feb 12 10:28	30°♎			1953 Feb 08 01:07	0°♎	
opposition	1948 Feb 17 16:16	27°♈55'33	4°29'44	asc. node	1953 Mar 18 15:01	28°♎47'02	
greatest brilliancy	1948 Feb 17 15:58	27°♈55'51	-1.2m		1953 Mar 20 06:54	0°♋	
min. Earth dist.	1948 Feb 17 20:08	27°♈51'41	0.67758 AU		1953 May 01 06:08	0°♌	
direct	1948 Mar 29 12:33	18°♈06'13		evening set	1953 May 17 11:16	11°♌13'59	
	1948 May 18 20:53	0°♎			1953 Jun 14 03:49	0°♌	
	1948 Jul 17 05:25	0°♊					
desc. node	1948 Aug 13 10:05	16°♊24'39		conjunction	1953 Jul 08 21:00	16°♌22'03	0°57'10
	1948 Sep 03 13:58	0°♌		minimum elong	1953 Jul 08 19:38	16°♌19'50	0°57'10
	1948 Oct 17 05:43	0°♏		max. Earth dist.	1953 Jul 25 06:45	27°♌04'04	2.63373 AU
	1948 Nov 26 21:59	0°♐			1953 Jul 29 19:25	0°♈	
	1949 Jan 04 17:50	0°♑		morning rise	1953 Aug 25 20:40	17°♈22'10	
evening set	1949 Jan 08 21:04	3°♑14'48			1953 Sep 14 17:59	0°♎	
	1949 Feb 11 18:05	0°♋			1953 Nov 01 14:19	0°♊	
					1953 Dec 20 11:22	0°♌	

	1954 Feb 09 19:17	0°♊			1959 Feb 10 13:57	0°♈		
desc. node	1954 Apr 05 07:24	27°♊07'40			1959 Apr 10 09:46	0°♉		
	1954 Apr 12 16:28	0°♈			1959 Jun 01 02:26	0°♊		
retrograde	1954 May 23 12:47	8°♈31'55			1959 Jul 20 11:03	0°♋		
opposition	1954 Jun 24 17:21	2°♈38'28 -4°-15'-47			1959 Sep 05 22:46	0°♌		
greatest brilliancy	1954 Jun 26 07:12	2°♈09'06 -2.5m	evening set		1959 Sep 13 08:38	4°♌47'55		
min. Earth dist.	1954 Jul 02 07:55	0°♈17'30 0.42780 AU	max. Earth dist.		1959 Oct 04 22:08	18°♌57'39 2.59396 AU		
	1954 Jul 03 07:23	30°♋♊			1959 Oct 21 09:40	0°♍		
direct	1954 Jul 29 15:20	25°♊35'22						
	1954 Aug 24 13:22	0°♈	conjunction		1959 Oct 30 01:46	5°♍53'14 0°15'47		
	1954 Oct 21 12:03	0°♉	minimum elong		1959 Oct 30 02:21	5°♍54'14 0°15'46		
	1954 Dec 04 07:41	0°♋	behind sun begin		1959 Oct 29 22:04	5°♍46'55		
	1955 Jan 15 04:33	0°♌	behind sun end		1959 Oct 30 06:38	6°♍01'32		
asc. node	1955 Feb 03 13:04	13°♌49'56	desc. node		1959 Nov 26 04:00	24°♍38'40		
	1955 Feb 26 10:22	0°♋			1959 Dec 03 18:09	0°♊		
	1955 Apr 10 23:09	0°♈	morning rise		1959 Dec 17 12:21	9°♊49'00		
	1955 May 26 00:50	0°♉			1960 Jan 14 04:59	0°♈		
evening set	1955 Jun 30 21:28	23°♉15'46			1960 Feb 23 04:11	0°♉		
	1955 Jul 11 09:22	0°♊			1960 Apr 02 06:24	0°♋		
					1960 May 11 07:19	0°♌		
conjunction	1955 Aug 17 02:46	23°♊26'16 1°08'48			1960 Jun 20 09:05	0°♋		
minimum elong	1955 Aug 17 02:53	23°♊26'27 1°08'48			1960 Aug 02 04:32	0°♈		
max. Earth dist.	1955 Aug 18 07:05	24°♊11'20 2.67465 AU			1960 Sep 21 04:06	0°♉		
	1955 Aug 27 10:13	0°♋	asc. node		1960 Sep 25 11:02	2°♉10'17		
morning rise	1955 Sep 30 20:17	21°♋55'40	retrograde		1960 Nov 20 17:04	18°♉39'14		
	1955 Oct 13 11:19	0°♌	min. Earth dist.		1960 Dec 25 05:40	10°♉48'15 0.60681 AU		
	1955 Nov 29 01:33	0°♍	greatest brilliancy		1960 Dec 29 10:57	9°♉07'48 -1.6m		
	1956 Jan 14 02:28	0°♊	opposition		1960 Dec 30 10:21	8°♉44'34 3°40'29		
desc. node	1956 Feb 21 06:41	25°♊02'34			1961 Feb 05 00:25	30°♋♈		
	1956 Feb 28 20:05	0°♈	direct		1961 Feb 06 02:51	29°♈59'33		
	1956 Apr 14 23:40	0°♉			1961 Feb 07 05:24	0°♉		
	1956 Jun 03 07:51	0°♋			1961 May 06 01:13	0°♊		
retrograde	1956 Aug 10 16:18	23°♋39'23			1961 Jun 28 23:47	0°♋		
min. Earth dist.	1956 Sep 07 04:48	19°♋10'18 0.37809 AU			1961 Aug 17 00:41	0°♌		
opposition	1956 Sep 10 21:58	18°♋08'42 -5°-55'-19			1961 Oct 01 20:02	0°♍		
greatest brilliancy	1956 Sep 10 02:54	18°♋21'53 -2.9m	desc. node		1961 Oct 13 02:57	7°♍41'35		
direct	1956 Oct 10 10:06	13°♋09'05	evening set		1961 Oct 23 14:15	14°♍56'08		
	1956 Dec 06 11:24	0°♌	max. Earth dist.		1961 Nov 07 04:13	25°♍11'38 2.48096 AU		
asc. node	1956 Dec 21 12:01	7°♌49'58			1961 Nov 13 21:50	0°♊		
	1957 Jan 28 14:19	0°♋						
	1957 Mar 17 21:34	0°♈	conjunction		1961 Dec 14 18:29	22°♊32'35 0°-36'-29		
	1957 May 04 15:22	0°♉	minimum elong		1961 Dec 14 16:45	22°♊29'22 0°36'29		
	1957 Jun 21 12:18	0°♊			1961 Dec 24 17:50	0°♈		
evening set	1957 Aug 07 03:16	29°♊18'37			1962 Feb 01 23:06	0°♉		
	1957 Aug 08 05:27	0°♋	morning rise		1962 Feb 11 21:55	7°♋44'35		
max. Earth dist.	1957 Sep 09 11:53	20°♋32'19 2.66074 AU			1962 Mar 12 07:58	0°♋		
					1962 Apr 19 16:58	0°♌		
conjunction	1957 Sep 21 14:29	28°♋19'46 0°53'36			1962 May 28 23:47	0°♋		
minimum elong	1957 Sep 21 15:34	28°♋21'32 0°53'36			1962 Jul 09 03:50	0°♈		
	1957 Sep 24 04:31	0°♌	asc. node		1962 Aug 13 09:19	24°♈04'25		
morning rise	1957 Nov 05 06:39	27°♌36'03			1962 Aug 22 11:37	0°♉		
	1957 Nov 08 21:04	0°♍			1962 Oct 11 23:54	0°♊		
	1957 Dec 23 01:29	0°♊	retrograde		1962 Dec 26 06:11	24°♊47'55		
desc. node	1958 Jan 08 04:54	11°♊13'09	min. Earth dist.		1963 Feb 03 03:18	15°♊29'42 0.67044 AU		
	1958 Feb 03 18:57	0°♈	opposition		1963 Feb 04 11:57	14°♊57'01 4°33'24		
	1958 Mar 17 07:11	0°♉	greatest brilliancy		1963 Feb 04 03:58	15°♊05'01 -1.3m		
	1958 Apr 27 02:31	0°♋	direct		1963 Mar 16 17:21	5°♊20'08		
	1958 Jun 07 06:21	0°♌			1963 Jun 03 06:30	0°♋		
	1958 Jul 21 07:03	0°♋			1963 Jul 27 04:14	0°♌		
	1958 Sep 21 05:26	0°♈	desc. node		1963 Aug 31 01:15	21°♌53'01		
retrograde	1958 Oct 10 09:46	2°♈32'08			1963 Sep 12 09:11	0°♍		
	1958 Oct 29 00:01	30°♋♈			1963 Oct 25 17:31	0°♊		
asc. node	1958 Nov 08 12:04	26°♋41'33			1963 Dec 05 09:03	0°♈		
min. Earth dist.	1958 Nov 08 13:10	26°♋40'34 0.48770 AU	evening set		1963 Dec 15 07:33	7°♈34'03		
opposition	1958 Nov 16 14:32	23°♋44'11 0°26'09			1964 Jan 13 06:13	0°♉		
greatest brilliancy	1958 Nov 16 09:01	23°♋49'13 -2.2m						
direct	1958 Dec 20 06:45	16°♋34'40	conjunction		1964 Feb 17 02:57	27°♋28'38 -1°-4'-4		

minimum elong	1964 Feb 17 03:57	27° \approx 30'35	1°04'05		1968 Dec 29 22:07	0° \mathbb{M}	
max. Earth dist.	1964 Feb 19 14:41	29° \approx 26'40	2.37046 AU		1969 Feb 25 06:21	0° \mathcal{A}	
	1964 Feb 20 07:33	0° \mathcal{H}		desc. node	1969 Apr 21 22:26	16° \mathcal{A} 34'35	
	1964 Mar 29 11:24	0° \mathcal{Y}		retrograde	1969 Apr 27 11:24	16° \mathcal{A} 45'36	
morning rise	1964 Apr 27 22:42	22° \mathcal{Y} 41'35		opposition	1969 May 31 15:51	9° \mathcal{A} 59'58	-2°-1'-6
	1964 May 07 14:41	0° \mathcal{B}		greatest brilliancy	1969 Jun 01 14:22	9° \mathcal{A} 40'55	-2.2m
	1964 Jun 17 11:43	0° \mathbb{I}		min. Earth dist.	1969 Jun 09 04:09	7° \mathcal{A} 07'28	0.47955 AU
asc. node	1964 Jun 30 09:11	9° \mathbb{I} 08'02		direct	1969 Jul 08 06:07	1° \mathcal{A} 41'55	
	1964 Jul 30 18:22	0° \mathcal{S}			1969 Sep 21 06:35	0° \mathcal{S}	
	1964 Sep 15 05:22	0° \mathcal{Q}			1969 Nov 04 18:50	0° \approx	
	1964 Nov 06 03:20	0° \mathcal{M}			1969 Dec 15 14:22	0° \mathcal{H}	
retrograde	1965 Jan 28 22:38	28° \mathcal{M} 02'47			1970 Jan 24 21:29	0° \mathcal{Y}	
opposition	1965 Mar 09 12:29	18° \mathcal{M} 43'46	4°00'10	asc. node	1970 Feb 20 05:35	19° \mathcal{Y} 18'27	
greatest brilliancy	1965 Mar 09 23:08	18° \mathcal{M} 33'15	-1.3m		1970 Mar 07 01:28	0° \mathcal{B}	
min. Earth dist.	1965 Mar 12 01:08	17° \mathcal{M} 43'57	0.66848 AU		1970 Apr 18 18:59	0° \mathbb{I}	
direct	1965 Apr 19 21:56	8° \mathcal{M} 43'12			1970 Jun 02 06:50	0° \mathcal{S}	
	1965 Jun 29 01:12	0° \mathcal{A}		evening set	1970 Jun 14 17:37	8° \mathcal{S} 12'19	
desc. node	1965 Jul 18 00:27	10° \mathcal{A} 02'17			1970 Jul 18 06:43	0° \mathcal{Q}	
	1965 Aug 20 12:16	0° \mathbb{M}					
	1965 Oct 04 06:46	0° \mathcal{A}		conjunction	1970 Aug 02 12:01	9° \mathcal{Q} 46'31	1°07'46
	1965 Nov 14 07:19	0° \mathcal{S}		minimum elong	1970 Aug 02 11:33	9° \mathcal{Q} 45'47	1°07'46
	1965 Dec 23 05:36	0° \approx		max. Earth dist.	1970 Aug 09 04:50	14° \mathcal{Q} 03'48	2.66511 AU
greatest brilliancy	1966 Jan 06 15:23	11° \approx 19'26	1.2m		1970 Sep 03 04:57	0° \mathcal{M}	
	1966 Jan 30 07:01	0° \mathcal{H}		morning rise	1970 Sep 17 02:08	8° \mathcal{M} 49'14	
evening set	1966 Feb 21 22:39	17° \mathcal{H} 49'58			1970 Oct 20 10:57	0° \mathcal{A}	
	1966 Mar 09 12:55	0° \mathcal{Y}			1970 Dec 06 16:34	0° \mathbb{M}	
	1966 Apr 17 20:35	0° \mathcal{B}			1971 Jan 23 01:34	0° \mathcal{A}	
conjunction	1966 Apr 29 05:29	8° \mathcal{B} 27'14	0°-12'-19	desc. node	1971 Mar 09 21:39	28° \mathcal{A} 28'05	
minimum elong	1966 Apr 29 06:27	8° \mathcal{B} 29'01	0°12'20		1971 Mar 12 10:11	0° \mathcal{S}	
behind sun begin	1966 Apr 28 13:15	7° \mathcal{B} 57'15		retrograde	1971 May 03 20:57	0° \approx	
behind sun end	1966 Apr 29 23:40	9° \mathcal{B} 00'45		opposition	1971 Jul 11 06:30	21° \approx 57'26	
asc. node	1966 May 18 07:56	22° \mathcal{B} 24'08		greatest brilliancy	1971 Aug 10 06:53	17° \approx 00'18	-6°-50'-15
	1966 May 28 22:07	0° \mathbb{I}		min. Earth dist.	1971 Aug 10 21:39	16° \approx 50'31	-2.9m
max. Earth dist.	1966 Jun 12 16:23	10° \mathbb{I} 25'26	2.49033 AU	direct	1971 Aug 12 02:26	16° \approx 31'26	0.37570 AU
morning rise	1966 Jun 28 16:13	21° \mathbb{I} 30'38			1971 Sep 09 13:51	11° \approx 53'25	
	1966 Jul 11 03:15	0° \mathcal{S}			1971 Nov 06 12:31	0° \mathcal{H}	
	1966 Aug 25 15:52	0° \mathcal{Q}		asc. node	1971 Dec 26 18:04	0° \mathcal{Y}	
	1966 Oct 12 18:37	0° \mathcal{M}			1972 Jan 08 05:14	8° \mathcal{Y} 03'45	
	1966 Dec 04 00:55	0° \mathcal{A}			1972 Feb 10 14:04	0° \mathcal{B}	
	1967 Feb 12 12:20	0° \mathbb{M}			1972 Mar 27 04:30	0° \mathbb{I}	
retrograde	1967 Mar 08 17:44	3° \mathbb{M} 11'42			1972 May 12 13:14	0° \mathcal{S}	
	1967 Mar 31 06:10	30° \mathcal{R} \mathcal{A}		evening set	1972 Jun 28 16:09	0° \mathcal{Q}	
opposition	1967 Apr 15 11:30	24° \mathcal{A} 48'38	2°02'20		1972 Jul 23 15:28	15° \mathcal{Q} 48'27	
greatest brilliancy	1967 Apr 16 04:00	24° \mathcal{A} 32'58	-1.6m	max. Earth dist.	1972 Aug 15 00:59	0° \mathcal{M}	
min. Earth dist.	1967 Apr 21 17:33	22° \mathcal{A} 26'26	0.60121 AU		1972 Aug 31 13:28	10° \mathcal{M} 30'21	2.67262 AU
direct	1967 May 26 09:29	14° \mathcal{A} 59'05		conjunction	1972 Sep 07 10:57	14° \mathcal{M} 54'24	1°02'22
desc. node	1967 Jun 04 23:54	15° \mathcal{A} 33'37		minimum elong	1972 Sep 07 11:47	14° \mathcal{M} 55'44	1°02'22
	1967 Jul 19 22:56	0° \mathbb{M}			1972 Sep 30 23:23	0° \mathcal{A}	
	1967 Sep 10 01:44	0° \mathcal{A}		morning rise	1972 Oct 21 18:44	13° \mathcal{A} 29'24	
	1967 Oct 23 02:14	0° \mathcal{S}			1972 Nov 15 22:17	0° \mathbb{M}	
	1967 Dec 01 20:12	0° \approx			1972 Dec 30 16:12	0° \mathcal{A}	
	1968 Jan 09 09:49	0° \mathcal{H}		desc. node	1973 Jan 24 20:40	17° \mathcal{A} 15'00	
	1968 Feb 17 03:18	0° \mathcal{Y}			1973 Feb 12 05:50	0° \mathcal{S}	
	1968 Mar 27 23:43	0° \mathcal{B}			1973 Mar 26 20:59	0° \approx	
asc. node	1968 Apr 04 05:55	5° \mathcal{B} 20'10			1973 May 08 04:09	0° \mathcal{H}	
evening set	1968 Apr 26 23:05	21° \mathcal{B} 45'15			1973 Jun 20 20:53	0° \mathcal{Y}	
	1968 May 08 14:14	0° \mathbb{I}			1973 Aug 12 14:56	0° \mathcal{B}	
conjunction	1968 Jun 21 15:47	0° \mathcal{S} 18'03	0°44'14	retrograde	1973 Sep 19 23:19	9° \mathcal{B} 16'18	
minimum elong	1968 Jun 21 14:08	0° \mathcal{S} 15'16	0°44'13	min. Earth dist.	1973 Oct 17 04:05	4° \mathcal{B} 14'30	0.43603 AU
	1968 Jun 21 05:03	0° \mathcal{S}		greatest brilliancy	1973 Oct 24 09:15	1° \mathcal{B} 49'52	-2.5m
max. Earth dist.	1968 Jul 15 03:27	15° \mathcal{S} 55'16	2.60321 AU	opposition	1973 Oct 25 03:27	1° \mathcal{B} 34'33	-1°-50'-18
	1968 Aug 05 17:07	0° \mathcal{Q}			1973 Oct 29 22:56	30° \mathcal{R} \mathcal{Y}	
morning rise	1968 Aug 11 00:10	3° \mathcal{Q} 25'12		asc. node	1973 Nov 25 03:55	25° \mathcal{Y} 18'33	
	1968 Sep 21 18:39	0° \mathcal{M}		direct	1973 Nov 26 00:06	25° \mathcal{Y} 18'16	
	1968 Nov 09 06:09	0° \mathcal{A}			1973 Dec 24 08:09	0° \mathcal{B}	
					1974 Feb 27 10:11	0° \mathbb{I}	

	1974 Apr 20 08:18	0°☿		conjunction	1979 Jan 20 12:18	29°☿50'34	-1°-1'-29
	1974 Jun 09 00:54	0°♈		minimum elong	1979 Jan 20 10:41	29°☿47'26	1°01'30
	1974 Jul 27 14:04	0°♊			1979 Jan 20 17:07	0°♈	
evening set	1974 Aug 29 16:43	20°♊56'07			1979 Feb 27 20:25	0°♊	
	1974 Sep 12 19:08	0°♈		morning rise	1979 Mar 29 22:28	23°♊40'04	
max. Earth dist.	1974 Sep 24 11:56	7°♈36'05	2.62622 AU		1979 Apr 07 01:08	0°♊	
					1979 May 16 04:25	0°♊	
conjunction	1974 Oct 14 12:56	20°♈47'58	0°32'50		1979 Jun 26 01:55	0°♊	
minimum elong	1974 Oct 14 13:57	20°♈49'38	0°32'50	asc. node	1979 Jul 18 00:28	15°♊23'57	
	1974 Oct 28 07:05	0°♊			1979 Aug 08 13:28	0°☿	
morning rise	1974 Nov 29 22:20	22°♊19'16			1979 Sep 24 21:21	0°♈	
	1974 Dec 10 22:05	0°♊			1979 Nov 19 21:36	0°♊	
desc. node	1974 Dec 12 19:19	1°♊19'31		retrograde	1980 Jan 16 06:18	15°♊20'48	
	1975 Jan 21 18:49	0°☿		opposition	1980 Feb 25 05:43	5°♊46'43	4°22'05
	1975 Mar 03 05:32	0°♈		greatest brilliancy	1980 Feb 25 09:35	5°♊42'52	-1.2m
	1975 Apr 11 19:15	0°♊		min. Earth dist.	1980 Feb 26 06:00	5°♊22'36	0.67731 AU
	1975 May 21 08:14	0°♊			1980 Mar 11 20:46	30°♊♈	
	1975 Jul 01 03:53	0°♊		direct	1980 Apr 06 08:27	25°♊52'14	
	1975 Aug 14 20:47	0°♊			1980 May 04 02:26	0°♊	
asc. node	1975 Oct 13 02:43	28°♊50'45			1980 Jul 10 17:59	0°♈	
	1975 Oct 17 08:44	0°☿		desc. node	1980 Aug 03 16:21	13°♈56'23	
retrograde	1975 Nov 06 12:01	2°☿39'53			1980 Aug 29 05:50	0°♊	
	1975 Nov 25 18:30	30°♊♈			1980 Oct 12 06:27	0°♊	
min. Earth dist.	1975 Dec 09 00:03	25°♊32'02	0.56548 AU		1980 Nov 22 01:42	0°☿	
opposition	1975 Dec 15 13:58	22°♊58'12	2°47'32		1980 Dec 30 22:30	0°♈	
greatest brilliancy	1975 Dec 14 14:09	23°♊21'25	-1.8m	evening set	1981 Jan 24 09:12	19°♈16'00	
direct	1976 Jan 20 21:27	14°♊43'52			1981 Feb 06 22:48	0°♊	
	1976 Mar 18 13:15	0°☿			1981 Mar 17 02:40	0°♊	
	1976 May 16 11:10	0°♈					
	1976 Jul 06 23:27	0°♊		conjunction	1981 Apr 02 14:13	12°♊44'49	0°-38'-43
	1976 Aug 24 05:55	0°♈		minimum elong	1981 Apr 02 17:14	12°♊50'36	0°38'42
evening set	1976 Oct 06 16:26	28°♈32'15			1981 Apr 25 07:17	0°♊	
	1976 Oct 08 20:23	0°♊		max. Earth dist.	1981 May 23 23:20	21°♊10'18	2.43616 AU
max. Earth dist.	1976 Oct 23 00:37	9°♊40'42	2.52957 AU	asc. node	1981 Jun 03 23:46	29°♊06'55	
desc. node	1976 Oct 29 18:37	14°♊20'57			1981 Jun 05 05:26	0°♊	
	1976 Nov 20 23:53	0°♊		morning rise	1981 Jun 07 10:19	1°♊34'22	
					1981 Jul 18 08:54	0°☿	
conjunction	1976 Nov 25 01:20	2°♊54'24	0°-15'-44		1981 Sep 02 01:52	0°♈	
minimum elong	1976 Nov 25 00:36	2°♊53'07	0°15'45		1981 Oct 21 01:56	0°♊	
behind sun begin	1976 Nov 24 19:16	2°♊43'32			1981 Dec 16 00:14	0°♈	
behind sun end	1976 Nov 25 05:57	3°♊02'41		retrograde	1982 Feb 20 19:13	19°♈10'48	
	1977 Jan 01 00:42	0°☿		opposition	1982 Mar 31 10:13	10°♈22'19	2°59'31
morning rise	1977 Jan 17 22:07	12°☿43'24		greatest brilliancy	1982 Apr 01 03:22	10°♈05'43	-1.4m
	1977 Feb 09 11:57	0°♈		min. Earth dist.	1982 Apr 05 06:30	8°♈29'56	0.63512 AU
	1977 Mar 20 02:19	0°♊		direct	1982 May 11 18:35	0°♈22'47	
	1977 Apr 27 15:46	0°♊		desc. node	1982 Jun 21 14:53	9°♈07'22	
	1977 Jun 06 03:00	0°♊			1982 Aug 03 11:45	0°♊	
	1977 Jul 17 15:13	0°♊			1982 Sep 20 01:20	0°♊	
asc. node	1977 Aug 30 02:20	28°♊48'35			1982 Oct 31 23:05	0°☿	
	1977 Sep 01 00:20	0°☿			1982 Dec 10 06:17	0°♈	
	1977 Oct 26 18:56	0°♈			1983 Jan 17 13:10	0°♊	
retrograde	1977 Dec 12 19:12	11°♈33'40			1983 Feb 25 00:19	0°♊	
min. Earth dist.	1978 Jan 19 03:01	2°♈46'10	0.65319 AU	evening set	1983 Apr 04 16:29	29°♊19'54	
greatest brilliancy	1978 Jan 21 08:52	1°♈52'16	-1.3m		1983 Apr 05 14:03	0°♊	
opposition	1978 Jan 22 00:11	1°♈36'56	4°24'44	asc. node	1983 Apr 21 23:34	12°♊04'37	
	1978 Jan 26 01:59	30°♊☿			1983 May 16 21:43	0°♊	
direct	1978 Mar 02 09:56	22°☿16'34					
	1978 Apr 10 18:50	0°♈		conjunction	1983 Jun 03 11:21	12°♊19'26	0°25'58
	1978 Jun 14 02:38	0°♊		minimum elong	1983 Jun 03 09:56	12°♊16'59	0°25'57
	1978 Aug 04 09:07	0°♈			1983 Jun 29 06:54	0°☿	
desc. node	1978 Sep 16 17:56	27°♈54'28		max. Earth dist.	1983 Jul 04 18:44	3°☿41'56	2.56424 AU
	1978 Sep 19 20:57	0°♊		morning rise	1983 Jul 27 01:04	18°☿29'10	
	1978 Nov 02 01:20	0°♊			1983 Aug 13 16:54	0°♈	
evening set	1978 Nov 22 17:54	15°♊03'44			1983 Sep 30 00:12	0°♊	
	1978 Dec 12 17:39	0°☿			1983 Nov 18 10:26	0°♈	
max. Earth dist.	1978 Dec 13 14:19	0°☿39'04	2.40191 AU		1984 Jan 11 03:20	0°♊	
				retrograde	1984 Apr 05 12:22	28°♊20'50	

desc. node	1984 May 08 14:02	21° \mathbb{M} 50'02			1989 Aug 03 13:35	0° \mathbb{M}	
opposition	1984 May 11 08:52	20° \mathbb{M} 50'37	0°-7'-49	evening set	1989 Aug 15 07:48	7° \mathbb{M} 25'47	
greatest brilliancy	1983 Oct 15 03:04	9° \mathbb{M} 20'24	-4.0m	max. Earth dist.	1989 Sep 14 21:00	26° \mathbb{M} 56'39	2.65069 AU
min. Earth dist.	1984 May 19 10:38	17° \mathbb{M} 56'54	0.53147 AU		1989 Sep 19 14:38	0° \mathbb{M}	
direct	1984 Jun 19 18:16	11° \mathbb{M} 41'56					
	1984 Aug 17 19:50	0° \mathbb{M}		conjunction	1989 Sep 29 19:00	6° \mathbb{M} 36'28	0°46'55
	1984 Oct 05 06:02	0° \mathbb{M}		minimum elong	1989 Sep 29 20:08	6° \mathbb{M} 38'19	0°46'55
	1984 Nov 15 18:09	0° \mathbb{M}			1989 Nov 04 05:29	0° \mathbb{M}	
	1984 Dec 25 06:38	0° \mathbb{M}		morning rise	1989 Nov 13 21:44	6° \mathbb{M} 30'15	
	1985 Feb 02 17:19	0° \mathbb{M}			1989 Dec 18 04:57	0° \mathbb{M}	
asc. node	1985 Mar 08 22:07	25° \mathbb{Y} 24'43		desc. node	1989 Dec 29 11:30	7° \mathbb{M} 52'37	
	1985 Mar 15 05:06	0° \mathbb{M}			1990 Jan 29 14:10	0° \mathbb{M}	
	1985 Apr 26 09:13	0° \mathbb{M}			1990 Mar 11 15:54	0° \mathbb{M}	
evening set	1985 May 28 04:34	21° \mathbb{M} 46'52			1990 Apr 20 22:09	0° \mathbb{M}	
	1985 Jun 09 10:40	0° \mathbb{M}			1990 May 31 07:11	0° \mathbb{M}	
					1990 Jul 12 14:44	0° \mathbb{M}	
conjunction	1985 Jul 18 02:41	25° \mathbb{M} 25'41	1°02'24		1990 Aug 31 11:40	0° \mathbb{M}	
minimum elong	1985 Jul 18 01:38	25° \mathbb{M} 23'58	1°02'23	retrograde	1990 Oct 20 19:30	14° \mathbb{M} 33'47	
	1985 Jul 25 04:04	0° \mathbb{M}		asc. node	1990 Oct 29 18:44	13° \mathbb{M} 58'09	
max. Earth dist.	1985 Jul 30 22:10	3° \mathbb{M} 42'50	2.64713 AU	min. Earth dist.	1990 Nov 20 03:53	8° \mathbb{M} 14'10	0.51691 AU
morning rise	1985 Sep 03 02:09	25° \mathbb{M} 34'18		opposition	1990 Nov 27 20:33	5° \mathbb{M} 20'31	1°27'35
	1985 Sep 10 01:31	0° \mathbb{M}		greatest brilliancy	1990 Nov 27 04:25	5° \mathbb{M} 35'42	-2.0m
	1985 Oct 27 15:16	0° \mathbb{M}			1990 Dec 14 07:46	30° \mathbb{M}	
	1985 Dec 14 18:59	0° \mathbb{M}		direct	1991 Jan 01 12:49	27° \mathbb{M} 45'11	
	1986 Feb 02 06:27	0° \mathbb{M}			1991 Jan 21 01:15	0° \mathbb{M}	
desc. node	1986 Mar 26 12:56	29° \mathbb{M} 10'37			1991 Apr 03 00:49	0° \mathbb{M}	
	1986 Mar 28 03:47	0° \mathbb{M}			1991 May 26 12:19	0° \mathbb{M}	
retrograde	1986 Jun 08 23:25	23° \mathbb{M} 06'44			1991 Jul 15 12:36	0° \mathbb{M}	
opposition	1986 Jul 10 05:28	17° \mathbb{M} 40'50	-5°-30'-32		1991 Sep 01 06:38	0° \mathbb{M}	
greatest brilliancy	1986 Jul 11 18:57	17° \mathbb{M} 13'29	-2.7m	evening set	1991 Sep 21 22:44	13° \mathbb{M} 26'24	
min. Earth dist.	1986 Jul 16 10:53	15° \mathbb{M} 52'33	0.40357 AU	max. Earth dist.	1991 Oct 11 09:52	26° \mathbb{M} 22'20	2.57315 AU
direct	1986 Aug 12 07:46	11° \mathbb{M} 25'00			1991 Oct 16 19:05	0° \mathbb{M}	
	1986 Oct 09 01:01	0° \mathbb{M}					
	1986 Nov 26 02:35	0° \mathbb{M}		conjunction	1991 Nov 08 09:17	15° \mathbb{M} 27'59	0°04'48
	1987 Jan 08 12:20	0° \mathbb{M}		minimum elong	1991 Nov 08 09:27	15° \mathbb{M} 28'17	0°04'48
asc. node	1987 Jan 24 20:38	11° \mathbb{Y} 25'10		behind sun begin	1991 Nov 07 13:46	14° \mathbb{M} 54'10	
	1987 Feb 20 14:44	0° \mathbb{M}		behind sun end	1991 Nov 09 05:09	16° \mathbb{M} 02'26	
	1987 Apr 05 16:37	0° \mathbb{M}		desc. node	1991 Nov 16 10:36	21° \mathbb{M} 04'45	
	1987 May 21 03:01	0° \mathbb{M}			1991 Nov 29 02:19	0° \mathbb{M}	
	1987 Jul 06 16:46	0° \mathbb{M}		morning rise	1991 Dec 28 09:31	21° \mathbb{M} 08'37	
evening set	1987 Jul 09 17:22	1° \mathbb{M} 55'52			1992 Jan 09 09:47	0° \mathbb{M}	
	1987 Aug 22 19:51	0° \mathbb{M}			1992 Feb 18 04:38	0° \mathbb{M}	
max. Earth dist.	1987 Aug 23 12:36	0° \mathbb{M} 26'37	2.67622 AU		1992 Mar 28 02:04	0° \mathbb{M}	
					1992 May 05 21:36	0° \mathbb{M}	
conjunction	1987 Aug 25 07:32	1° \mathbb{M} 34'56	1°07'32		1992 Jun 14 15:56	0° \mathbb{M}	
minimum elong	1987 Aug 25 07:58	1° \mathbb{M} 35'37	1°07'32		1992 Jul 26 18:59	0° \mathbb{M}	
morning rise	1987 Oct 08 18:43	29° \mathbb{M} 58'49			1992 Sep 12 06:05	0° \mathbb{M}	
	1987 Oct 08 19:27	0° \mathbb{M}		asc. node	1992 Sep 15 17:17	1° \mathbb{M} 57'36	
	1987 Nov 24 03:19	0° \mathbb{M}		retrograde	1992 Nov 28 23:31	27° \mathbb{M} 37'21	
	1988 Jan 08 15:24	0° \mathbb{M}		min. Earth dist.	1993 Jan 03 13:27	19° \mathbb{M} 24'47	0.62609 AU
desc. node	1988 Feb 11 11:58	22° \mathbb{M} 38'40		opposition	1993 Jan 07 22:42	17° \mathbb{M} 39'53	4°01'55
	1988 Feb 22 10:15	0° \mathbb{M}		greatest brilliancy	1993 Jan 07 01:25	18° \mathbb{M} 01'07	-1.5m
	1988 Apr 06 21:44	0° \mathbb{M}		direct	1993 Feb 15 07:43	8° \mathbb{M} 40'31	
	1988 May 22 07:42	0° \mathbb{M}			1993 Apr 27 23:40	0° \mathbb{M}	
	1988 Jul 13 20:00	0° \mathbb{M}			1993 Jun 23 07:42	0° \mathbb{M}	
retrograde	1988 Aug 26 14:40	11° \mathbb{Y} 27'50			1993 Aug 12 01:10	0° \mathbb{M}	
min. Earth dist.	1988 Sep 22 03:13	6° \mathbb{Y} 59'37	0.39314 AU	desc. node	1993 Sep 27 02:15	0° \mathbb{M}	
greatest brilliancy	1988 Sep 27 00:31	5° \mathbb{Y} 33'33	-2.8m	evening set	1993 Oct 03 09:00	4° \mathbb{M} 15'13	
opposition	1988 Sep 28 03:31	5° \mathbb{Y} 13'38	-4°-33'-34		1993 Nov 02 22:02	25° \mathbb{M} 29'49	
	1988 Oct 23 22:02	30° \mathbb{M}			1993 Nov 09 05:29	0° \mathbb{M}	
direct	1988 Oct 28 05:07	29° \mathbb{M} 52'41		max. Earth dist.	1993 Nov 17 14:55	6° \mathbb{M} 02'58	2.45265 AU
	1988 Nov 01 12:57	0° \mathbb{M}			1993 Dec 20 00:34	0° \mathbb{M}	
asc. node	1988 Dec 11 20:35	10° \mathbb{Y} 43'59					
	1989 Jan 19 08:11	0° \mathbb{M}		conjunction	1993 Dec 27 02:28	5° \mathbb{M} 20'56	0°-47'-22
	1989 Mar 11 08:51	0° \mathbb{M}		minimum elong	1993 Dec 27 00:22	5° \mathbb{M} 16'57	0°47'22
	1989 Apr 29 04:37	0° \mathbb{M}			1994 Jan 28 04:05	0° \mathbb{M}	
	1989 Jun 16 14:10	0° \mathbb{M}		morning rise	1994 Feb 27 16:06	23° \mathbb{M} 52'32	

greatest brilliancy	1994 Mar 06 06:43	29° \approx 04'21	1.2m	retrograde	1999 Mar 18 13:41	12° \mathbb{M} 12'11	
	1994 Mar 07 11:01	0° \mathbb{H}		opposition	1999 Apr 24 17:38	4° \mathbb{M} 05'57	1°20'35
	1994 Apr 14 18:02	0° \mathbb{Y}		greatest brilliancy	1999 Apr 25 06:33	3° \mathbb{M} 53'52	-1.7m
	1994 May 23 22:37	0° \mathbb{B}		min. Earth dist.	1999 May 01 17:22	1° \mathbb{M} 29'32	0.57847 AU
	1994 Jul 03 22:30	0° \mathbb{II}			1999 May 05 21:32	30° \mathbb{R} $\underline{\mathbb{A}}$	
asc. node	1994 Aug 03 17:36	21° \mathbb{II} 19'13		desc. node	1999 May 26 05:10	24° $\underline{\mathbb{A}}$ 59'35	
	1994 Aug 16 19:15	0° \mathbb{S}		direct	1999 Jun 04 06:10	24° $\underline{\mathbb{A}}$ 26'52	
	1994 Oct 04 15:48	0° \mathbb{Q}			1999 Jul 05 03:59	0° \mathbb{M}	
	1994 Dec 12 11:32	0° \mathbb{M}			1999 Sep 02 19:29	0° \mathbb{Z}	
retrograde	1995 Jan 02 21:27	2° \mathbb{M} 40'08			1999 Oct 17 01:35	0° \mathbb{Z}	
	1995 Jan 22 23:48	30° \mathbb{R} \mathbb{Q}			1999 Nov 26 06:56	0° \approx	
opposition	1995 Feb 12 02:31	22° \mathbb{Q} 54'16	4°32'40		2000 Jan 04 03:01	0° \mathbb{H}	
greatest brilliancy	1995 Feb 11 22:50	22° \mathbb{Q} 57'58	-1.2m		2000 Feb 12 01:04	0° \mathbb{Y}	
min. Earth dist.	1995 Feb 11 14:15	23° \mathbb{Q} 06'32	0.67569 AU		2000 Mar 23 01:25	0° \mathbb{B}	
direct	1995 Mar 24 17:18	13° \mathbb{Q} 09'55		asc. node	2000 Mar 25 14:32	1° \mathbb{B} 52'10	
	1995 May 25 16:09	0° \mathbb{M}			2000 May 03 19:18	0° \mathbb{II}	
	1995 Jul 21 09:21	0° $\underline{\mathbb{A}}$		evening set	2000 May 08 21:10	3° \mathbb{II} 33'22	
desc. node	1995 Aug 21 07:30	18° $\underline{\mathbb{A}}$ 58'52			2000 Jun 16 12:30	0° \mathbb{S}	
	1995 Sep 07 07:00	0° \mathbb{M}					
	1995 Oct 20 21:02	0° \mathbb{Z}		conjunction	2000 Jul 01 15:50	10° \mathbb{S} 05'47	0°52'20
	1995 Nov 30 13:57	0° \mathbb{Z}		minimum elong	2000 Jul 01 14:18	10° \mathbb{S} 03'15	0°52'19
evening set	1995 Dec 29 08:46	22° \mathbb{Z} 07'04		max. Earth dist.	2000 Jul 21 05:13	22° \mathbb{S} 57'12	2.62108 AU
	1996 Jan 08 11:02	0° \approx			2000 Aug 01 01:21	0° \mathbb{Q}	
	1996 Feb 15 11:50	0° \mathbb{H}		morning rise	2000 Aug 19 14:47	11° \mathbb{Q} 57'02	
					2000 Sep 17 00:19	0° \mathbb{M}	
conjunction	1996 Mar 04 14:02	14° \mathbb{H} 17'06	0°-58'-41		2000 Nov 04 02:00	0° $\underline{\mathbb{A}}$	
minimum elong	1996 Mar 04 16:36	14° \mathbb{H} 22'11	0°58'41		2000 Dec 23 14:37	0° \mathbb{M}	
	1996 Mar 24 15:12	0° \mathbb{Y}			2001 Feb 14 20:06	0° \mathbb{Z}	
max. Earth dist.	1996 Apr 17 18:31	18° \mathbb{Y} 38'04	2.38534 AU	desc. node	2001 Apr 12 04:42	24° \mathbb{Z} 22'07	
	1996 May 02 18:16	0° \mathbb{B}		retrograde	2001 May 11 16:08	29° \mathbb{Z} 02'57	
morning rise	1996 May 13 14:54	8° \mathbb{B} 07'11		opposition	2001 Jun 13 17:46	22° \mathbb{Z} 45'46	-3°-16'-17
	1996 Jun 12 14:42	0° \mathbb{II}		greatest brilliancy	2001 Jun 15 02:51	22° \mathbb{Z} 18'56	-2.4m
asc. node	1996 Jun 20 16:39	5° \mathbb{II} 45'14		min. Earth dist.	2001 Jun 21 22:51	20° \mathbb{Z} 06'36	0.45017 AU
	1996 Jul 25 18:32	0° \mathbb{S}		direct	2001 Jul 19 22:45	15° \mathbb{Z} 06'29	
	1996 Sep 09 20:02	0° \mathbb{Q}			2001 Sep 08 17:51	0° \mathbb{Z}	
	1996 Oct 30 07:13	0° \mathbb{M}			2001 Oct 27 17:19	0° \approx	
	1997 Jan 03 08:10	0° $\underline{\mathbb{A}}$			2001 Dec 08 21:52	0° \mathbb{H}	
retrograde	1997 Feb 06 00:37	5° $\underline{\mathbb{A}}$ 55'22			2002 Jan 18 22:53	0° \mathbb{Y}	
	1997 Mar 08 19:50	30° \mathbb{R} \mathbb{M}		asc. node	2002 Feb 10 13:06	16° \mathbb{Y} 21'58	
opposition	1997 Mar 17 07:55	26° \mathbb{M} 46'09	3°41'30		2002 Mar 01 15:05	0° \mathbb{B}	
greatest brilliancy	1997 Mar 17 21:34	26° \mathbb{M} 32'45	-1.3m		2002 Apr 13 17:36	0° \mathbb{II}	
min. Earth dist.	1997 Mar 20 16:45	25° \mathbb{M} 26'58	0.65939 AU		2002 May 28 11:43	0° \mathbb{S}	
direct	1997 Apr 27 19:09	16° \mathbb{M} 44'18		evening set	2002 Jun 24 02:29	17° \mathbb{S} 23'24	
	1997 Jun 19 08:30	0° $\underline{\mathbb{A}}$			2002 Jul 13 15:23	0° \mathbb{Q}	
desc. node	1997 Jul 08 06:33	8° $\underline{\mathbb{A}}$ 59'01					
	1997 Aug 14 08:42	0° \mathbb{M}		conjunction	2002 Aug 10 22:17	18° \mathbb{Q} 06'09	1°08'51
	1997 Sep 28 22:22	0° \mathbb{Z}		minimum elong	2002 Aug 10 22:10	18° \mathbb{Q} 05'59	1°08'51
	1997 Nov 09 05:33	0° \mathbb{Z}		max. Earth dist.	2002 Aug 14 11:48	20° \mathbb{Q} 22'29	2.67143 AU
	1997 Dec 18 06:37	0° \approx			2002 Aug 29 14:38	0° \mathbb{M}	
	1998 Jan 25 09:26	0° \mathbb{H}		morning rise	2002 Sep 24 23:27	16° \mathbb{M} 46'31	
	1998 Mar 04 16:18	0° \mathbb{Y}			2002 Oct 15 17:38	0° $\underline{\mathbb{A}}$	
evening set	1998 Mar 09 15:25	3° \mathbb{Y} 50'29			2002 Dec 01 14:26	0° \mathbb{M}	
	1998 Apr 13 01:04	0° \mathbb{B}			2003 Jan 17 04:22	0° \mathbb{Z}	
asc. node	1998 May 08 14:53	18° \mathbb{B} 50'07		desc. node	2003 Feb 28 04:21	26° \mathbb{Z} 59'46	
					2003 Mar 04 21:17	0° \mathbb{Z}	
conjunction	1998 May 12 19:45	21° \mathbb{B} 52'33	0°02'44		2003 Apr 21 23:48	0° \approx	
minimum elong	1998 May 12 19:35	21° \mathbb{B} 52'15	0°02'44		2003 Jun 17 02:25	0° \mathbb{H}	
behind sun begin	1998 May 11 18:19	21° \mathbb{B} 06'40		retrograde	2003 Jul 29 07:36	10° \mathbb{H} 08'02	
behind sun end	1998 May 13 20:50	22° \mathbb{B} 37'47		min. Earth dist.	2003 Aug 27 09:46	5° \mathbb{H} 22'46	0.37272 AU
	1998 May 24 03:42	0° \mathbb{II}		opposition	2003 Aug 28 17:59	5° \mathbb{H} 01'14	-6°-37'-3
max. Earth dist.	1998 Jun 21 12:40	19° \mathbb{II} 51'54	2.51843 AU	greatest brilliancy	2003 Aug 28 12:33	5° \mathbb{H} 04'51	-2.9m
	1998 Jul 06 09:00	0° \mathbb{S}		direct	2003 Sep 27 07:52	0° \mathbb{H} 07'07	
morning rise	1998 Jul 09 13:12	2° \mathbb{S} 08'40			2003 Dec 16 13:24	0° \mathbb{Y}	
	1998 Aug 20 19:16	0° \mathbb{Q}		asc. node	2003 Dec 29 11:21	7° \mathbb{Y} 38'17	
	1998 Oct 07 12:28	0° \mathbb{M}			2004 Feb 03 10:04	0° \mathbb{B}	
	1998 Nov 27 10:10	0° $\underline{\mathbb{A}}$			2004 Mar 21 07:39	0° \mathbb{II}	
	1999 Jan 26 11:59	0° \mathbb{M}			2004 May 07 08:46	0° \mathbb{S}	

	2004 Jun 23 20:50	0°♏				2009 Apr 22 13:44	0°♑		
evening set	2004 Jul 31 23:42	24°♏01'47				2009 May 31 21:18	0°♒		
	2004 Aug 10 10:14	0°♑				2009 Jul 12 02:56	0°♓		
max. Earth dist.	2004 Sep 05 19:18	16°♑46'42	2.66717 AU	asc. node		2009 Aug 20 09:14	26°♓34'37		
						2009 Aug 25 17:15	0°♑		
conjunction	2004 Sep 15 12:55	23°♑00'55	0°57'41			2009 Oct 16 15:32	0°♏		
minimum elong	2004 Sep 15 13:55	23°♑02'32	0°57'40	retrograde		2009 Dec 20 13:26	19°♏41'43		
	2004 Sep 26 09:15	0°♑		min. Earth dist.		2010 Jan 27 18:56	10°♏36'36	0.66398 AU	
morning rise	2004 Oct 29 23:42	21°♑54'33		opposition		2010 Jan 29 19:43	9°♏47'48	4°31'29	
	2004 Nov 11 05:11	0°♒		greatest brilliancy		2010 Jan 29 08:25	9°♏59'07	-1.3m	
	2004 Dec 25 16:04	0°♒		direct		2010 Mar 10 17:09	0°♏17'41		
desc. node	2005 Jan 15 02:53	14°♒07'27				2010 Jun 07 06:11	0°♑		
	2005 Feb 06 18:32	0°♒				2010 Jul 29 23:46	0°♑		
	2005 Mar 20 18:02	0°♒		desc. node		2010 Sep 06 23:10	24°♑42'43		
	2005 May 01 02:58	0°♒				2010 Sep 14 22:38	0°♒		
	2005 Jun 12 02:30	0°♑				2010 Oct 28 06:48	0°♒		
	2005 Jul 28 05:12	0°♒		evening set		2010 Dec 05 03:05	27°♒50'17		
retrograde	2005 Oct 01 22:04	23°♒22'20				2010 Dec 07 23:49	0°♒		
min. Earth dist.	2005 Oct 30 03:20	17°♒54'05	0.46405 AU	max. Earth dist.		2011 Jan 07 22:20	23°♒44'59	2.37934 AU	
opposition	2005 Nov 07 07:57	15°♒00'37	0°-27'-36			2011 Jan 15 22:41	0°♒		
greatest brilliancy	2005 Nov 07 02:42	15°♒05'16	-2.3m						
asc. node	2005 Nov 15 11:20	12°♒17'17		conjunction		2011 Feb 04 16:40	15°♒30'44	-1°-4'-44	
direct	2005 Dec 10 04:04	8°♒14'08		minimum elong		2011 Feb 04 16:20	15°♒30'05	1°04'46	
	2006 Feb 17 22:44	0°♓				2011 Feb 23 01:06	0°♒		
	2006 Apr 14 00:59	0°♑				2011 Apr 02 04:51	0°♑		
	2006 Jun 03 18:43	0°♏		morning rise		2011 Apr 16 01:09	10°♑44'29		
	2006 Jul 22 18:53	0°♑				2011 May 11 07:04	0°♒		
evening set	2006 Sep 07 00:56	29°♑15'53				2011 Jun 21 02:50	0°♓		
	2006 Sep 08 04:18	0°♑		asc. node		2011 Jul 08 08:48	12°♓11'36		
max. Earth dist.	2006 Sep 30 09:18	14°♑28'30	2.60940 AU			2011 Aug 03 09:22	0°♑		
						2011 Sep 19 01:51	0°♏		
conjunction	2006 Oct 23 06:46	29°♑43'23	0°23'17			2011 Nov 11 04:15	0°♑		
minimum elong	2006 Oct 23 07:34	29°♑44'44	0°23'17	retrograde		2012 Jan 24 00:54	23°♑05'34		
	2006 Oct 23 16:38	0°♒		opposition		2012 Mar 03 20:10	13°♑39'25	4°10'34	
desc. node	2006 Dec 03 01:46	27°♒47'40		greatest brilliancy		2012 Mar 04 03:59	13°♑31'42	-1.2m	
	2006 Dec 06 04:58	0°♒		min. Earth dist.		2012 Mar 05 16:55	12°♑55'10	0.67368 AU	
morning rise	2006 Dec 09 16:40	2°♒27'47		direct		2012 Apr 14 03:53	3°♑40'56		
	2007 Jan 16 20:54	0°♒				2012 Jul 03 12:32	0°♑		
	2007 Feb 26 01:32	0°♒		desc. node		2012 Jul 24 22:03	11°♑51'12		
	2007 Apr 06 08:49	0°♒				2012 Aug 23 15:24	0°♒		
	2007 May 15 14:06	0°♑				2012 Oct 07 03:21	0°♒		
	2007 Jun 24 21:27	0°♒				2012 Nov 17 02:36	0°♒		
	2007 Aug 07 06:01	0°♓				2012 Dec 26 00:49	0°♒		
	2007 Sep 28 23:55	0°♑				2013 Feb 02 01:54	0°♒		
asc. node	2007 Oct 03 10:46	1°♑58'39		evening set		2013 Feb 09 11:08	5°♒50'03		
retrograde	2007 Nov 15 08:24	12°♑27'03		greatest brilliancy		2013 Feb 23 06:16	16°♒42'09	1.2m	
min. Earth dist.	2007 Dec 18 23:41	4°♑54'52	0.58934 AU			2013 Mar 12 06:26	0°♑		
opposition	2007 Dec 24 19:47	2°♑36'56	3°21'16						
greatest brilliancy	2007 Dec 23 19:23	3°♑00'59	-1.6m	conjunction		2013 Apr 18 00:20	28°♑08'20	0°-23'-55	
	2007 Dec 31 16:00	30°♒♓		minimum elong		2013 Apr 18 02:17	28°♑12'00	0°23'54	
direct	2008 Jan 30 22:33	24°♓04'40				2013 Apr 20 11:48	0°♒		
	2008 Mar 04 10:01	0°♑		asc. node		2013 May 25 07:51	25°♒36'47		
	2008 May 09 20:20	0°♏				2013 May 31 10:39	0°♓		
	2008 Jul 01 16:21	0°♑		max. Earth dist.		2013 Jun 04 22:42	3°♓12'31	2.46650 AU	
	2008 Aug 19 10:03	0°♑		morning rise		2013 Jun 19 20:20	13°♓42'03		
	2008 Oct 04 04:34	0°♒				2013 Jul 13 13:22	0°♑		
evening set	2008 Oct 16 03:19	8°♒08'05				2013 Aug 28 02:05	0°♏		
desc. node	2008 Oct 20 00:45	10°♒48'46				2013 Oct 15 11:05	0°♑		
max. Earth dist.	2008 Oct 31 03:43	18°♒32'36	2.50336 AU			2013 Dec 07 20:41	0°♑		
	2008 Nov 16 08:27	0°♒		retrograde		2014 Mar 01 16:24	27°♑31'58		
				opposition		2014 Apr 08 21:04	18°♑56'50	2°28'09	
conjunction	2008 Dec 05 22:04	14°♒09'18	0°-27'-45	greatest brilliancy		2014 Apr 09 14:22	18°♑40'15	-1.5m	
minimum elong	2008 Dec 05 20:45	14°♒06'54	0°27'45	min. Earth dist.		2014 Apr 14 12:48	16°♑47'01	0.61757 AU	
	2008 Dec 27 07:30	0°♒		direct		2014 May 20 01:31	9°♑01'31		
morning rise	2009 Jan 31 12:21	26°♒47'41		desc. node		2014 Jun 11 21:44	12°♑04'56		
	2009 Feb 04 15:55	0°♒				2014 Jul 26 02:25	0°♒		
	2009 Mar 15 03:20	0°♒				2014 Sep 13 21:57	0°♒		

	2014 Oct 26 10:43	0°☾		conjunction	2019 Sep 02 10:42	9°☾41'11	1°04'57
	2014 Dec 04 23:57	0°≈		minimum elong	2019 Sep 02 11:24	9°☾42'17	1°04'57
	2015 Jan 12 10:20	0°☿			2019 Oct 04 04:22	0°♄	
	2015 Feb 20 00:11	0°♂		morning rise	2019 Oct 16 18:35	8°♄07'25	
	2015 Mar 31 16:26	0°♂			2019 Nov 19 07:40	0°♍	
asc. node	2015 Apr 12 05:41	8°♂30'26			2020 Jan 03 09:37	0°♂	
evening set	2015 Apr 18 05:53	12°♂53'23		desc. node	2020 Feb 01 18:23	19°♂55'03	
	2015 May 12 02:40	0°♂			2020 Feb 16 11:33	0°☾	
					2020 Mar 30 19:43	0°≈	
conjunction	2015 Jun 14 15:56	23°♂17'12	0°37'09		2020 May 13 04:17	0°☿	
minimum elong	2015 Jun 14 14:17	23°♂14'23	0°37'08		2020 Jun 28 01:45	0°♂	
	2015 Jun 24 13:33	0°☾		retrograde	2020 Sep 09 22:22	28°♂08'30	
max. Earth dist.	2015 Jul 11 12:19	11°☾20'19	2.58688 AU	min. Earth dist.	2020 Oct 06 14:13	23°♂25'07	0.41491 AU
morning rise	2015 Aug 05 07:47	27°☾37'39		opposition	2020 Oct 13 23:26	21°♂04'41	-2°-59'-44
	2015 Aug 08 23:32	0°♂		greatest brilliancy	2020 Oct 12 22:34	21°♂24'32	-2.6m
	2015 Sep 25 02:18	0°♂		direct	2020 Nov 14 00:36	15°♂14'00	
	2015 Nov 12 21:41	0°♄		asc. node	2020 Dec 02 03:33	17°♂17'42	
	2016 Jan 03 14:32	0°♍			2021 Jan 06 22:27	0°♂	
	2016 Mar 06 02:29	0°♂			2021 Mar 04 03:30	0°♂	
retrograde	2016 Apr 17 12:14	8°♂54'02			2021 Apr 23 11:49	0°☾	
desc. node	2016 Apr 28 20:16	8°♂06'00			2021 Jun 11 13:34	0°♂	
opposition	2016 May 22 11:17	1°♂47'23	-1°-9'-33		2021 Jul 29 20:32	0°♂	
greatest brilliancy	2016 May 23 00:39	1°♂35'43	-2.1m	evening set	2021 Aug 23 13:31	15°♂36'34	
	2016 May 27 13:51	30°♍			2021 Sep 15 00:14	0°♄	
min. Earth dist.	2016 May 30 21:29	28°♍51'16	0.50322 AU	max. Earth dist.	2021 Sep 20 11:34	3°♄32'33	2.63814 AU
direct	2016 Jun 29 23:38	23°♍03'28					
	2016 Aug 02 17:49	0°♂		conjunction	2021 Oct 08 04:01	15°♄05'50	0°39'06
	2016 Sep 27 08:07	0°☾		minimum elong	2021 Oct 08 05:06	15°♄07'38	0°39'05
	2016 Nov 09 05:51	0°≈			2021 Oct 30 14:21	0°♍	
	2016 Dec 19 09:23	0°☿		morning rise	2021 Nov 22 21:33	15°♍48'06	
	2017 Jan 28 05:39	0°♂			2021 Dec 13 09:53	0°♂	
asc. node	2017 Feb 27 05:16	22°♂09'15		desc. node	2021 Dec 19 17:03	4°♂24'46	
	2017 Mar 10 00:34	0°♂			2022 Jan 24 12:53	0°☾	
	2017 Apr 21 10:32	0°♂			2022 Mar 06 06:23	0°≈	
	2017 Jun 04 16:16	0°☾			2022 Apr 15 03:06	0°☿	
evening set	2017 Jun 07 09:44	1°☾48'43			2022 May 24 23:17	0°♂	
	2017 Jul 20 12:20	0°♂			2022 Jul 05 06:04	0°♂	
					2022 Aug 20 07:56	0°♂	
conjunction	2017 Jul 27 00:57	4°♂12'29	1°06'04	asc. node	2022 Oct 20 02:15	24°♂51'05	
minimum elong	2017 Jul 27 00:15	4°♂11'21	1°06'04	retrograde	2022 Oct 30 13:26	25°♂36'50	
max. Earth dist.	2017 Aug 05 10:39	10°♂14'57	2.65816 AU	min. Earth dist.	2022 Dec 01 02:11	18°♂50'27	0.54447 AU
	2017 Sep 05 09:35	0°♂		greatest brilliancy	2022 Dec 07 07:43	16°♂26'54	-1.9m
morning rise	2017 Sep 11 04:07	3°♂39'56		opposition	2022 Dec 08 05:42	16°♂05'47	2°17'42
	2017 Oct 22 18:29	0°♄		direct	2023 Jan 12 20:56	8°♂07'45	
	2017 Dec 09 08:59	0°♍			2023 Mar 25 11:45	0°☾	
	2018 Jan 26 12:56	0°♂			2023 May 20 15:31	0°♂	
desc. node	2018 Mar 16 19:03	29°♂28'59			2023 Jul 10 11:40	0°♂	
	2018 Mar 17 16:40	0°☾			2023 Aug 27 13:20	0°♄	
	2018 May 16 04:55	0°≈		evening set	2023 Sep 30 19:54	22°♄23'27	
retrograde	2018 Jun 26 21:04	9°≈13'05			2023 Oct 12 04:04	0°♍	
opposition	2018 Jul 27 05:13	4°≈08'47	-6°-28'-20	max. Earth dist.	2023 Oct 18 09:13	4°♍12'54	2.54978 AU
greatest brilliancy	2018 Jul 28 09:41	3°≈49'20	-2.8m	desc. node	2023 Nov 06 16:02	17°♍29'38	
min. Earth dist.	2018 Jul 31 07:45	3°≈01'38	0.38497 AU				
	2018 Aug 13 02:14	30°♍		conjunction	2023 Nov 18 05:43	25°♍36'44	0°-6'-56
direct	2018 Aug 27 14:05	28°☾36'36		minimum elong	2023 Nov 18 05:23	25°♍36'10	0°06'57
	2018 Sep 11 00:56	0°≈		behind sun begin	2023 Nov 17 10:07	25°♍02'09	
	2018 Nov 15 22:21	0°☿		behind sun end	2023 Nov 19 00:40	26°♍10'13	
	2019 Jan 01 02:20	0°♂			2023 Nov 24 10:15	0°♂	
asc. node	2019 Jan 15 04:48	9°♂30'59			2024 Jan 04 14:58	0°☾	
	2019 Feb 14 10:51	0°♂		morning rise	2024 Jan 09 05:05	3°☾25'21	
	2019 Mar 31 06:12	0°♂			2024 Feb 13 06:05	0°≈	
	2019 May 16 03:09	0°☾			2024 Mar 22 23:47	0°☿	
	2019 Jul 01 23:19	0°♂			2024 Apr 30 15:33	0°♂	
evening set	2019 Jul 18 08:26	10°♂24'26			2024 Jun 09 04:35	0°♂	
	2019 Aug 18 05:18	0°♂			2024 Jul 20 20:43	0°♂	
max. Earth dist.	2019 Aug 28 19:21	6°♂43'52	2.67533 AU		2024 Sep 04 19:46	0°☾	
				asc. node	2024 Sep 06 02:03	0°☾45'40	

	2024 Nov 04 04:10	0°♈			2029 Nov 04 00:32	0°♈	
retrograde	2024 Dec 06 23:33	6°♈10'16			2029 Dec 13 05:25	0°♈	
	2025 Jan 06 10:44	30°♈♌			2030 Jan 20 10:27	0°♈	
min. Earth dist.	2025 Jan 12 13:32	27°♌37'40	0.64228 AU		2030 Feb 27 19:07	0°♈	
greatest brilliancy	2025 Jan 15 08:26	26°♌30'49	-1.4m	evening set	2030 Mar 24 16:01	19°♈03'11	
opposition	2025 Jan 16 02:38	26°♌12'37	4°17'15		2030 Apr 08 05:27	0°♈	
direct	2025 Feb 24 02:00	17°♌00'55		asc. node	2030 Apr 28 23:02	15°♈17'15	
	2025 Apr 18 04:21	0°♈			2030 May 19 09:28	0°♈	
	2025 Jun 17 08:35	0°♈					
	2025 Aug 06 23:23	0°♈		conjunction	2030 May 25 10:50	4°♈17'32	0°16'38
	2025 Sep 22 07:54	0°♈		minimum elong	2030 May 25 09:48	4°♈15'43	0°16'36
desc. node	2025 Sep 23 15:20	0°♈52'50		max. Earth dist.	2030 Jun 29 09:12	28°♈28'17	2.54452 AU
	2025 Nov 04 13:01	0°♈			2030 Jul 01 15:19	0°♈	
evening set	2025 Nov 13 20:53	6°♈43'28		morning rise	2030 Jul 19 18:13	12°♌08'57	
max. Earth dist.	2025 Nov 30 10:09	18°♈52'01	2.42388 AU		2030 Aug 15 23:56	0°♈	
	2025 Dec 15 07:34	0°♈			2030 Oct 02 09:42	0°♈	
					2030 Nov 21 07:54	0°♈	
conjunction	2026 Jan 09 11:41	19°♈12'56	0°-56'-28		2031 Jan 15 22:48	0°♈	
minimum elong	2026 Jan 09 09:38	19°♈08'59	0°56'28	retrograde	2031 Mar 29 00:34	21°♈38'10	
	2026 Jan 23 09:17	0°♈		opposition	2031 May 04 12:03	13°♈50'54	0°32'19
	2026 Mar 02 14:16	0°♈		greatest brilliancy	2031 May 04 18:13	13°♈45'16	-1.8m
morning rise	2026 Mar 16 13:05	10°♈59'17		min. Earth dist.	2031 May 12 03:44	11°♈02'57	0.55337 AU
	2026 Apr 09 19:36	0°♈		desc. node	2031 May 16 11:41	9°♈32'23	
	2026 May 18 22:25	0°♈		direct	2031 Jun 13 11:56	4°♈26'17	
	2026 Jun 28 19:29	0°♈			2031 Aug 25 08:08	0°♈	
asc. node	2026 Jul 25 00:14	18°♈18'59			2031 Oct 10 13:47	0°♈	
	2026 Aug 11 08:30	0°♈			2031 Nov 20 10:57	0°♈	
	2026 Sep 28 02:49	0°♈			2031 Dec 29 15:15	0°♈	
	2026 Nov 25 23:37	0°♈			2032 Feb 06 19:19	0°♈	
retrograde	2027 Jan 10 12:59	10°♈25'44		asc. node	2032 Mar 15 21:58	28°♈27'17	
opposition	2027 Feb 19 15:51	0°♈46'06	4°27'48		2032 Mar 18 00:35	0°♈	
greatest brilliancy	2027 Feb 19 16:27	0°♈45'30	-1.2m		2032 Apr 28 22:44	0°♈	
min. Earth dist.	2027 Feb 20 00:08	0°♈37'52	0.67792 AU	evening set	2032 May 20 02:45	14°♈38'45	
	2027 Feb 21 14:13	30°♈♌			2032 Jun 11 19:06	0°♈	
direct	2027 Apr 01 14:08	20°♈55'36					
	2027 May 14 14:47	0°♈		conjunction	2032 Jul 11 05:16	19°♌28'27	0°58'45
	2027 Jul 15 05:40	0°♈		minimum elong	2032 Jul 11 03:59	19°♌26'22	0°58'45
desc. node	2027 Aug 11 14:00	16°♈18'32		max. Earth dist.	2032 Jul 27 00:50	29°♌46'10	2.63652 AU
	2027 Sep 02 01:52	0°♈			2032 Jul 27 09:23	0°♈	
	2027 Oct 15 23:14	0°♈		morning rise	2032 Aug 28 00:06	20°♈17'58	
	2027 Nov 25 18:38	0°♈			2032 Sep 12 06:32	0°♈	
	2028 Jan 03 16:01	0°♈			2032 Oct 30 00:38	0°♈	
evening set	2028 Jan 13 06:42	7°♈33'00			2032 Dec 17 16:46	0°♈	
	2028 Feb 10 16:32	0°♈			2033 Feb 06 11:12	0°♈	
	2028 Mar 19 19:36	0°♈		desc. node	2033 Apr 02 10:28	28°♈20'48	
					2033 Apr 06 06:51	0°♈	
conjunction	2028 Mar 21 02:35	1°♈00'23	0°-48'-38	retrograde	2033 May 26 23:47	12°♈30'17	
minimum elong	2028 Mar 21 05:51	1°♈06'44	0°48'37	opposition	2033 Jun 28 01:29	6°♈41'55	-4°-33'-53
	2028 Apr 27 22:21	0°♈		greatest brilliancy	2033 Jun 29 16:09	6°♈12'13	-2.5m
max. Earth dist.	2028 May 11 20:53	10°♈24'20	2.41207 AU	min. Earth dist.	2033 Jul 05 11:13	4°♈26'22	0.42303 AU
morning rise	2028 May 28 03:27	22°♈20'31			2033 Jul 27 04:34	30°♈♌	
	2028 Jun 07 18:20	0°♈		direct	2033 Aug 01 14:24	29°♈47'30	
asc. node	2028 Jun 10 23:05	2°♈17'09			2033 Aug 07 00:48	0°♈	
	2028 Jul 20 20:10	0°♈			2033 Oct 17 21:52	0°♈	
	2028 Sep 04 14:36	0°♈			2033 Dec 01 12:09	0°♈	
	2028 Oct 24 01:10	0°♈			2034 Jan 12 15:15	0°♈	
	2028 Dec 21 08:46	0°♈		asc. node	2034 Jan 31 20:17	13°♈41'20	
retrograde	2029 Feb 14 08:16	13°♈55'21			2034 Feb 23 23:23	0°♈	
opposition	2029 Mar 25 07:49	4°♈57'09	3°18'31		2034 Apr 08 12:49	0°♈	
greatest brilliancy	2029 Mar 25 23:44	4°♈41'39	-1.3m		2034 May 23 14:26	0°♈	
min. Earth dist.	2029 Mar 29 12:50	3°♈18'57	0.64723 AU	evening set	2034 Jul 03 03:43	26°♌16'55	
	2029 Apr 07 13:09	30°♈♌			2034 Jul 08 22:51	0°♈	
direct	2029 May 05 19:00	24°♈55'45					
	2029 Jun 05 04:49	0°♈		conjunction	2034 Aug 19 05:22	26°♈19'56	1°08'33
desc. node	2029 Jun 28 12:38	8°♈54'42		minimum elong	2034 Aug 19 05:35	26°♈20'17	1°08'33
	2029 Aug 07 16:02	0°♈		max. Earth dist.	2034 Aug 19 17:47	26°♈39'42	2.67511 AU
	2029 Sep 23 08:14	0°♈			2034 Aug 24 23:42	0°♈	

morning rise	2034 Oct 02 21:24	24° \mathbb{M} 47'35		retrograde	2039 Nov 23 20:47	21° \mathbb{S} 45'15	
	2034 Oct 11 00:44	0° \mathbb{A}		min. Earth dist.	2039 Dec 28 14:40	13° \mathbb{S} 49'49	0.61091 AU
	2034 Nov 26 14:15	0° \mathbb{M}		opposition	2040 Jan 02 15:27	11° \mathbb{S} 49'57	3°47'34
	2035 Jan 11 13:01	0° \mathbb{J}		greatest brilliancy	2040 Jan 01 16:14	12° \mathbb{S} 13'01	-1.5m
desc. node	2035 Feb 18 09:34	24° \mathbb{J} 55'55		direct	2040 Feb 09 11:48	3° \mathbb{S} 01'43	
	2035 Feb 26 01:58	0° \mathbb{Z}			2040 May 02 12:07	0° \mathbb{Q}	
	2035 Apr 12 19:35	0° \approx			2040 Jun 26 04:42	0° \mathbb{M}	
	2035 May 30 22:07	0° \mathbb{H}			2040 Aug 14 12:35	0° \mathbb{A}	
retrograde	2035 Aug 15 10:01	28° \mathbb{H} 26'02			2040 Sep 29 12:09	0° \mathbb{M}	
min. Earth dist.	2035 Sep 11 14:14	23° \mathbb{H} 58'38	0.38041 AU	desc. node	2040 Oct 10 06:47	7° \mathbb{M} 19'06	
opposition	2035 Sep 15 19:39	22° \mathbb{H} 48'07	-5°-38'-36	evening set	2040 Oct 26 00:35	18° \mathbb{M} 12'20	
greatest brilliancy	2035 Sep 14 22:31	23° \mathbb{H} 02'50	-2.8m	max. Earth dist.	2040 Nov 09 09:21	28° \mathbb{M} 20'55	2.47575 AU
direct	2035 Oct 15 08:32	17° \mathbb{H} 45'25			2040 Nov 11 16:52	0° \mathbb{J}	
	2035 Dec 01 19:37	0° \mathbb{Y}					
asc. node	2035 Dec 19 19:51	8° \mathbb{Y} 46'59		conjunction	2040 Dec 17 12:49	26° \mathbb{J} 11'43	0°-39'-20
	2036 Jan 26 07:15	0° \mathbb{B}		minimum elong	2040 Dec 17 10:58	26° \mathbb{J} 08'17	0°39'20
	2036 Mar 15 02:37	0° \mathbb{II}			2040 Dec 22 14:49	0° \mathbb{Z}	
	2036 May 02 00:50	0° \mathbb{S}			2041 Jan 30 21:08	0° \approx	
	2036 Jun 18 23:57	0° \mathbb{Q}		morning rise	2041 Feb 15 07:18	12° \approx 00'35	
	2036 Aug 05 18:43	0° \mathbb{M}			2041 Mar 10 06:09	0° \mathbb{H}	
evening set	2036 Aug 09 05:07	2° \mathbb{M} 10'09			2041 Apr 17 14:18	0° \mathbb{Y}	
max. Earth dist.	2036 Sep 11 02:45	23° \mathbb{M} 07'03	2.65909 AU	greatest brilliancy	2041 Apr 28 01:49	8° \mathbb{Y} 06'58	1.2m
	2036 Sep 21 19:16	0° \mathbb{A}			2041 May 26 19:04	0° \mathbb{B}	
					2041 Jul 06 19:30	0° \mathbb{II}	
conjunction	2036 Sep 23 15:45	1° \mathbb{A} 11'52	0°51'49	asc. node	2041 Aug 10 17:14	23° \mathbb{II} 59'55	
minimum elong	2036 Sep 23 16:51	1° \mathbb{A} 13'39	0°51'48		2041 Aug 19 20:27	0° \mathbb{S}	
	2036 Nov 06 13:02	0° \mathbb{M}			2041 Oct 08 13:53	0° \mathbb{Q}	
morning rise	2036 Nov 07 09:48	0° \mathbb{M} 34'36		retrograde	2041 Dec 28 05:39	27° \mathbb{Q} 39'16	
	2036 Dec 20 18:00	0° \mathbb{J}		min. Earth dist.	2042 Feb 05 07:50	18° \mathbb{Q} 17'40	0.67174 AU
desc. node	2037 Jan 05 09:19	10° \mathbb{J} 52'02		opposition	2042 Feb 06 12:05	17° \mathbb{Q} 49'26	4°33'43
	2037 Feb 01 11:08	0° \mathbb{Z}		greatest brilliancy	2042 Feb 06 05:00	17° \mathbb{Q} 56'30	-1.2m
	2037 Mar 14 22:02	0° \approx		direct	2042 Mar 18 19:50	8° \mathbb{Q} 10'50	
	2037 Apr 24 14:44	0° \mathbb{H}			2042 May 30 13:08	0° \mathbb{M}	
	2037 Jun 04 13:03	0° \mathbb{Y}			2042 Jul 24 09:51	0° \mathbb{A}	
	2037 Jul 17 22:42	0° \mathbb{B}		desc. node	2042 Aug 28 05:22	21° \mathbb{A} 40'13	
	2037 Sep 11 20:28	0° \mathbb{II}			2042 Sep 09 22:53	0° \mathbb{M}	
retrograde	2037 Oct 12 23:09	6° \mathbb{II} 15'48			2042 Oct 23 11:37	0° \mathbb{J}	
asc. node	2037 Nov 05 18:38	2° \mathbb{II} 13'00			2042 Dec 03 05:42	0° \mathbb{Z}	
min. Earth dist.	2037 Nov 11 07:53	0° \mathbb{II} 19'34	0.49357 AU	evening set	2042 Dec 18 09:52	11° \mathbb{Z} 33'59	
	2037 Nov 12 05:39	30° \mathbb{R} \mathbb{B}			2043 Jan 11 04:09	0° \approx	
opposition	2037 Nov 19 09:09	27° \mathbb{B} 22'23	0°43'17		2043 Feb 18 05:43	0° \mathbb{H}	
greatest brilliancy	2037 Nov 19 00:18	27° \mathbb{B} 30'31	-2.2m				
direct	2037 Dec 23 06:31	20° \mathbb{B} 07'36		conjunction	2043 Feb 20 17:46	1° \mathbb{H} 58'41	-1°-3'-14
	2038 Feb 05 00:33	0° \mathbb{II}		minimum elong	2043 Feb 20 19:11	2° \mathbb{H} 01'28	1°03'16
	2038 Apr 07 04:57	0° \mathbb{S}		max. Earth dist.	2043 Mar 09 06:19	15° \mathbb{H} 01'06	2.37120 AU
	2038 May 29 08:38	0° \mathbb{Q}			2043 Mar 28 08:55	0° \mathbb{Y}	
	2038 Jul 17 22:07	0° \mathbb{M}		morning rise	2043 May 02 13:30	27° \mathbb{Y} 04'04	
	2038 Sep 03 13:04	0° \mathbb{A}			2043 May 06 10:41	0° \mathbb{B}	
evening set	2038 Sep 15 11:23	7° \mathbb{A} 43'14			2043 Jun 16 05:22	0° \mathbb{II}	
max. Earth dist.	2038 Oct 06 13:50	21° \mathbb{A} 36'29	2.59037 AU	asc. node	2043 Jun 28 16:39	8° \mathbb{II} 51'42	
	2038 Oct 19 02:36	0° \mathbb{M}			2043 Jul 29 08:30	0° \mathbb{S}	
					2043 Sep 13 13:25	0° \mathbb{Q}	
conjunction	2038 Nov 01 07:00	8° \mathbb{M} 57'18	0°12'54		2043 Nov 03 19:21	0° \mathbb{M}	
minimum elong	2038 Nov 01 07:29	8° \mathbb{M} 58'07	0°12'53		2044 Jan 19 17:59	0° \mathbb{A}	
behind sun begin	2038 Oct 31 19:13	8° \mathbb{M} 37'10		retrograde	2044 Jan 31 23:10	0° \mathbb{A} 53'01	
behind sun end	2038 Nov 01 19:45	9° \mathbb{M} 19'06			2044 Feb 12 17:25	30° \mathbb{R} \mathbb{M}	
desc. node	2038 Nov 23 08:21	24° \mathbb{M} 13'38		opposition	2044 Mar 11 12:50	21° \mathbb{M} 35'51	3°54'54
	2038 Dec 01 13:05	0° \mathbb{J}		greatest brilliancy	2044 Mar 12 00:06	21° \mathbb{M} 24'45	-1.3m
morning rise	2038 Dec 20 00:17	13° \mathbb{J} 11'21		min. Earth dist.	2044 Mar 14 06:01	20° \mathbb{M} 31'44	0.66709 AU
	2039 Jan 12 01:12	0° \mathbb{Z}		direct	2044 Apr 21 23:36	11° \mathbb{M} 34'47	
	2039 Feb 21 00:45	0° \approx			2044 Jun 25 03:35	0° \mathbb{A}	
	2039 Apr 01 02:23	0° \mathbb{H}		desc. node	2044 Jul 15 04:23	10° \mathbb{A} 17'10	
	2039 May 10 01:29	0° \mathbb{Y}			2044 Aug 17 18:43	0° \mathbb{M}	
	2039 Jun 18 23:31	0° \mathbb{B}			2044 Oct 01 22:01	0° \mathbb{J}	
	2039 Jul 31 10:57	0° \mathbb{II}			2044 Nov 12 02:48	0° \mathbb{Z}	
	2039 Sep 18 07:28	0° \mathbb{S}			2044 Dec 21 03:03	0° \approx	
asc. node	2039 Sep 23 16:59	2° \mathbb{S} 51'01		greatest brilliancy	2044 Dec 22 07:30	0° \approx 55'40	1.2m

evening set	2045 Jan 28 04:57	0° H		morning rise	2049 Sep 19 02:30	11° M 39'16	
	2045 Feb 25 11:22	22° H 14'28			2049 Oct 17 23:46	0° L	
	2045 Mar 07 10:14	0° Y			2049 Dec 04 03:48	0° M	
	2045 Apr 15 16:26	0° B			2050 Jan 20 08:40	0° J	
conjunction				desc. node	2050 Mar 07 01:49	28° J 37'58	
	2045 May 02 10:42	12° B 26'39	0°-8'-32		2050 Mar 09 07:08	0° Z	
	minimum elong	2045 May 02 11:22	12° B 27'52		2050 Apr 29 08:45	0° \approx	
	behind sun begin	2045 May 01 12:36	11° B 46'01	retrograde	2050 Jul 15 06:02	26° \approx 42'24	
behind sun end	2045 May 03 10:07	13° B 09'40		opposition	2050 Aug 14 07:51	21° \approx 45'16	-6°-51'-30
asc. node	2045 May 15 14:39	22° B 02'57		greatest brilliancy	2050 Aug 14 18:52	21° \approx 37'57	-2.9m
	2045 May 26 16:00	0° II		min. Earth dist.	2050 Aug 15 12:48	21° \approx 26'02	0.37405 AU
max. Earth dist.	2045 Jun 14 21:05	13° II 33'41	2.49582 AU	direct	2050 Sep 13 11:01	16° \approx 42'38	
morning rise	2045 Jul 01 08:52	24° II 57'11			2050 Oct 31 20:49	0° H	
	2045 Jul 08 18:43	0° S			2050 Dec 23 09:08	0° Y	
	2045 Aug 23 04:17	0° Q		asc. node	2051 Jan 05 10:54	8° Y 19'22	
	2045 Oct 10 01:54	0° M			2051 Feb 07 17:57	0° B	
	2045 Nov 30 18:55	0° L			2051 Mar 25 13:20	0° II	
retrograde	2046 Feb 04 05:55	0° M			2051 May 11 00:16	0° S	
	2046 Mar 11 02:10	6° M 13'56			2051 Jun 27 04:23	0° Q	
	2046 Apr 12 01:50	30° R L		evening set	2051 Jul 26 18:56	18° Q 43'26	
	opposition	2046 Apr 17 18:06	27° L 54'06		2051 Aug 13 14:14	0° M	
greatest brilliancy	2046 Apr 18 09:41	27° L 39'23	-1.6m	max. Earth dist.	2051 Sep 03 00:44	12° M 59'36	2.67195 AU
min. Earth dist.	2046 Apr 24 04:26	25° L 28'25	0.59705 AU				
direct	2046 May 28 15:31	18° L 06'16		conjunction	2051 Sep 10 12:23	17° M 46'26	1°01'08
desc. node	2046 Jun 02 02:57	18° L 13'59		minimum elong	2051 Sep 10 13:18	17° M 47'53	1°01'07
	2046 Jul 15 05:12	0° M			2051 Sep 29 13:36	0° L	
	2046 Sep 07 05:03	0° J		morning rise	2051 Oct 24 20:23	16° L 23'56	
	2046 Oct 20 16:07	0° Z			2051 Nov 14 13:13	0° M	
	2046 Nov 29 14:25	0° \approx			2051 Dec 29 07:10	0° J	
	2047 Jan 07 05:45	0° H		desc. node	2052 Jan 23 00:38	16° J 56'40	
	2047 Feb 14 23:22	0° Y			2052 Feb 10 19:54	0° Z	
	2047 Mar 26 18:49	0° B			2052 Mar 24 08:43	0° \approx	
asc. node	2047 Apr 02 14:09	5° B 00'41			2052 May 05 11:00	0° H	
evening set	2047 Apr 30 19:36	25° B 23'37			2052 Jun 17 15:12	0° Y	
	2047 May 07 07:44	0° II			2052 Aug 06 16:31	0° B	
	2047 Jun 19 20:43	0° S		retrograde	2052 Sep 22 19:11	13° B 22'56	
conjunction				min. Earth dist.	2052 Oct 20 05:05	8° B 16'49	0.44090 AU
	2047 Jun 25 02:56	3° S 32'06	0°46'33	opposition	2052 Oct 28 06:33	5° B 33'09	-1°-29'-3
	minimum elong	2047 Jun 25 01:17	3° S 29'20	greatest brilliancy	2052 Oct 27 15:10	5° B 46'12	-2.5m
	max. Earth dist.	2047 Jul 17 20:34	18° S 37'13		2052 Nov 18 09:06	30° R Y	
morning rise	2047 Aug 04 06:59	0° Q		asc. node	2052 Nov 22 10:37	29° Y 30'24	
	2047 Aug 14 04:35	6° Q 23'47		direct	2052 Nov 29 06:19	29° Y 11'20	
	2047 Sep 20 06:28	0° M			2052 Dec 10 12:54	0° B	
	2047 Nov 07 14:26	0° L			2053 Feb 23 19:45	0° II	
	2047 Dec 27 21:25	0° M			2053 Apr 17 10:44	0° S	
	2048 Feb 21 17:49	0° J			2053 Jun 06 09:21	0° Q	
desc. node	2048 Apr 19 02:04	19° J 35'17			2053 Jul 25 01:52	0° M	
retrograde	2048 Apr 30 16:52	20° J 22'25		evening set	2053 Aug 31 19:55	23° M 51'11	
opposition	2048 Jun 03 14:50	13° J 42'18	-2°-19'-17		2053 Sep 10 09:28	0° L	
greatest brilliancy	2048 Jun 04 16:17	13° J 20'52	-2.2m	max. Earth dist.	2053 Sep 26 04:22	10° L 15'12	2.62323 AU
min. Earth dist.	2048 Jun 12 01:34	10° J 52'06	0.47367 AU				
direct	2048 Jul 10 22:38	5° J 31'03		conjunction	2053 Oct 16 16:58	23° L 47'53	0°30'16
	2048 Sep 17 11:49	0° Z		minimum elong	2053 Oct 16 17:55	23° L 49'29	0°30'15
	2048 Nov 01 23:07	0° \approx			2053 Oct 25 23:26	0° M	
	2048 Dec 13 01:51	0° H		morning rise	2053 Dec 02 06:18	25° M 31'26	
	2049 Jan 22 11:54	0° Y			2053 Dec 08 15:51	0° J	
asc. node	2049 Feb 17 13:15	19° Y 04'50		desc. node	2053 Dec 09 23:20	0° J 55'17	
	2049 Mar 04 16:49	0° B			2054 Jan 19 13:21	0° Z	
	2049 Apr 16 10:13	0° II			2054 Mar 01 00:07	0° \approx	
	2049 May 30 21:26	0° S			2054 Apr 09 13:06	0° H	
evening set	2049 Jun 17 02:04	11° S 19'10			2054 May 19 00:02	0° Y	
	2049 Jul 15 20:39	0° Q			2054 Jun 28 14:49	0° B	
					2054 Aug 11 18:05	0° II	
conjunction	2049 Aug 04 15:15	12° Q 41'49	1°08'11		2054 Oct 08 19:53	0° S	
minimum elong	2049 Aug 04 14:54	12° Q 41'15	1°08'11	asc. node	2054 Oct 10 10:38	0° S 33'10	
max. Earth dist.	2049 Aug 10 18:55	16° Q 37'49	2.66653 AU	retrograde	2054 Nov 08 18:42	5° S 54'21	
	2049 Aug 31 18:23	0° M			2054 Dec 08 00:45	30° R II	

min. Earth dist.	2054 Dec 11 11:36	28°II41'57	0.57014 AU	evening set	2060 Jan 29 00:28	23°≈47'53	
opposition	2054 Dec 17 22:14	26°II11'11	2°57'52		2060 Feb 05 20:36	0°✕	
greatest brilliancy	2054 Dec 16 21:51	26°II35'00	-1.7m		2060 Mar 15 00:05	0°Υ	
direct	2055 Jan 23 10:01	17°II53'08					
	2055 Mar 14 15:21	0°☿		conjunction	2060 Apr 06 03:54	17°Υ07'02	0°-35'-15
	2055 May 14 08:41	0°♈		minimum elong	2060 Apr 06 06:42	17°Υ12'24	0°35'14
	2055 Jul 05 07:04	0°♊			2060 Apr 23 03:27	0°♋	
	2055 Aug 22 18:43	0°♌		max. Earth dist.	2060 May 26 20:47	24°♌52'36	2.44210 AU
	2055 Oct 07 12:49	0°♍		asc. node	2060 Jun 01 07:34	28°♌48'10	
evening set	2055 Oct 09 23:32	1°♍39'11			2060 Jun 02 23:37	0°♍	
max. Earth dist.	2055 Oct 25 20:59	12°♍31'15	2.52486 AU	morning rise	2060 Jun 10 09:48	5°♍17'37	
desc. node	2055 Oct 27 22:10	13°♍56'17			2060 Jul 16 00:23	0°☿	
	2055 Nov 19 18:55	0°♎			2060 Aug 30 13:28	0°♈	
					2060 Oct 18 06:09	0°♊	
conjunction	2055 Nov 28 13:51	6°♎17'46	0°-18'-52		2060 Dec 12 03:06	0°♌	
minimum elong	2055 Nov 28 12:59	6°♎16'12	0°18'52	retrograde	2061 Feb 22 22:44	22°♌04'13	
	2055 Dec 30 21:25	0°♍		opposition	2061 Apr 02 12:52	13°♌18'16	2°50'54
morning rise	2056 Jan 21 21:54	16°♍36'25		greatest brilliancy	2061 Apr 03 06:01	13°♌01'44	-1.4m
	2056 Feb 08 09:23	0°≈		min. Earth dist.	2061 Apr 07 13:47	11°♌21'44	0.63199 AU
	2056 Mar 17 23:34	0°✕		direct	2061 May 13 21:40	3°♌19'08	
	2056 Apr 25 11:53	0°Υ		desc. node	2061 Jun 18 19:16	10°♌17'16	
	2056 Jun 03 20:47	0°♋			2061 Jul 31 03:59	0°♍	
	2056 Jul 15 04:40	0°♌			2061 Sep 17 11:41	0°♎	
asc. node	2056 Aug 27 09:06	28°II52'16			2061 Oct 29 15:43	0°♏	
	2056 Aug 29 04:09	0°☿			2061 Dec 08 01:36	0°≈	
	2056 Oct 22 04:25	0°♈			2062 Jan 15 09:19	0°✕	
retrograde	2056 Dec 14 20:17	14°♈28'15			2062 Feb 22 20:09	0°Υ	
min. Earth dist.	2057 Jan 21 08:56	5°♈36'48	0.65552 AU		2062 Apr 03 08:48	0°♋	
greatest brilliancy	2057 Jan 23 11:02	4°♈46'41	-1.3m	evening set	2062 Apr 07 23:04	3°♋24'41	
opposition	2057 Jan 24 01:31	4°♈32'10	4°27'23	asc. node	2062 Apr 19 05:27	11°♋42'12	
	2057 Feb 05 01:06	30°♏☿			2062 May 14 14:54	0°♌	
direct	2057 Mar 04 13:32	25°☿09'36					
	2057 Apr 03 21:31	0°♈		conjunction	2062 Jun 06 06:04	15°II51'29	0°29'06
	2057 Jun 10 21:52	0°♊		minimum elong	2062 Jun 06 04:34	15°II48'53	0°29'04
	2057 Aug 01 17:27	0°♌			2062 Jun 26 22:17	0°☿	
desc. node	2057 Sep 13 20:43	27°♌35'35		max. Earth dist.	2062 Jul 06 12:21	6°☿27'14	2.56900 AU
	2057 Sep 17 11:26	0°♍		morning rise	2062 Jul 29 09:37	21°☿37'01	
	2057 Oct 30 19:41	0°♎			2062 Aug 11 06:14	0°♈	
evening set	2057 Nov 25 13:38	18°♎45'16			2062 Sep 27 10:42	0°♊	
	2057 Dec 10 14:32	0°♏			2062 Nov 15 15:18	0°♌	
max. Earth dist.	2057 Dec 18 09:01	5°♏53'06	2.39736 AU		2063 Jan 07 14:56	0°♍	
	2058 Jan 18 15:25	0°≈			2063 Mar 23 09:40	0°♎	
				retrograde	2063 Apr 09 06:15	1°♎36'41	
conjunction	2058 Jan 23 20:23	4°≈04'10	-1°-2'-40		2063 Apr 25 06:57	30°♏♍	
minimum elong	2058 Jan 23 19:03	4°≈01'34	1°02'40	desc. node	2063 May 06 17:56	26°♍58'14	
	2058 Feb 25 19:02	0°✕		opposition	2063 May 14 22:20	24°♍10'46	0°-23'-11
morning rise	2058 Apr 02 17:52	28°✕16'15		greatest brilliancy	2063 May 15 02:49	24°♍06'46	-1.9m
	2058 Apr 04 23:04	0°Υ		min. Earth dist.	2063 May 23 01:49	21°♍16'04	0.52638 AU
	2058 May 14 00:36	0°♋		direct	2063 Jun 23 04:41	15°♍05'43	
	2058 Jun 23 19:18	0°♌			2063 Aug 14 10:59	0°♎	
asc. node	2058 Jul 15 08:01	15°II10'19			2063 Oct 03 10:19	0°♏	
	2058 Aug 06 02:29	0°☿			2063 Nov 14 07:24	0°≈	
	2058 Sep 22 01:48	0°♈			2063 Dec 23 23:02	0°✕	
	2058 Nov 15 18:22	0°♊			2064 Feb 01 10:31	0°Υ	
retrograde	2059 Jan 18 05:58	18°♊09'37		asc. node	2064 Mar 06 04:38	25°Υ05'49	
opposition	2059 Feb 27 05:30	8°♊37'09	4°19'02		2064 Mar 12 21:50	0°♋	
greatest brilliancy	2059 Feb 27 10:16	8°♊32'25	-1.2m		2064 Apr 24 00:50	0°♌	
min. Earth dist.	2059 Feb 28 10:25	8°♊08'28	0.67681 AU	evening set	2064 May 30 18:44	25°II07'58	
	2059 Mar 26 01:40	30°♏♈			2064 Jun 07 01:06	0°☿	
direct	2059 Apr 09 09:47	28°♏41'36					
	2059 Apr 24 10:40	0°♊		conjunction	2064 Jul 20 10:02	28°☿30'14	1°03'34
	2059 Jul 08 12:47	0°♌		minimum elong	2064 Jul 20 09:04	28°☿28'40	1°03'34
desc. node	2059 Aug 01 19:29	13°♌55'22			2064 Jul 22 17:29	0°♈	
	2059 Aug 27 15:38	0°♍		max. Earth dist.	2064 Aug 01 16:03	6°♈24'49	2.64965 AU
	2059 Oct 10 22:30	0°♎		morning rise	2064 Sep 05 04:51	28°♈29'09	
	2059 Nov 20 21:10	0°♏			2064 Sep 07 14:03	0°♊	
	2059 Dec 29 19:43	0°≈			2064 Oct 25 02:23	0°♌	

	2064 Dec 12 02:43	0°♌			2070 Jul 12 22:15	0°♎		
	2065 Jan 30 05:30	0°♊			2070 Aug 29 20:00	0°♎		
desc. node	2065 Mar 23 16:28	29°♊52'34		evening set	2070 Sep 24 03:48	16°♎27'43		
	2065 Mar 23 22:06	0°♊		max. Earth dist.	2070 Oct 13 04:40	29°♎08'35	2.56876 AU	
retrograde	2065 Jun 12 20:01	27°♊23'12			2070 Oct 14 11:11	0°♌		
opposition	2065 Jul 13 21:02	22°♊02'13	-5°-45'-44					
greatest brilliancy	2065 Jul 15 09:57	21°♊35'44	-2.7m	conjunction	2070 Nov 10 18:23	18°♌42'05	0°01'42	
min. Earth dist.	2065 Jul 19 19:44	20°♊20'26	0.39959 AU	minimum elong	2070 Nov 10 18:29	18°♌42'14	0°01'41	
direct	2065 Aug 15 14:42	15°♊55'30		behind sun begin	2070 Nov 09 22:04	18°♌06'45		
	2065 Oct 03 19:23	0°♋		behind sun end	2070 Nov 11 14:54	19°♌17'46		
	2065 Nov 22 21:22	0°♋		desc. node	2070 Nov 13 13:33	20°♌39'06		
	2066 Jan 05 18:43	0°♋			2070 Nov 26 20:29	0°♊		
asc. node	2066 Jan 22 04:18	11°♋23'40		morning rise	2070 Dec 31 03:13	24°♊46'01		
	2066 Feb 18 01:26	0°♉			2071 Jan 07 05:20	0°♊		
	2066 Apr 03 04:50	0°♈			2071 Feb 16 00:53	0°♋		
	2066 May 18 15:35	0°♉			2071 Mar 26 22:15	0°♋		
	2066 Jul 04 05:26	0°♈			2071 May 04 16:44	0°♋		
evening set	2066 Jul 11 22:58	4°♈55'54			2071 Jun 13 08:27	0°♉		
	2066 Aug 20 08:48	0°♎			2071 Jul 25 05:44	0°♈		
max. Earth dist.	2066 Aug 25 00:15	2°♎57'13	2.67633 AU		2071 Sep 10 00:26	0°♉		
				asc. node	2071 Sep 14 01:54	2°♉21'11		
conjunction	2066 Aug 27 09:57	4°♎28'59	1°06'54		2071 Nov 22 13:08	0°♈		
minimum elong	2066 Aug 27 10:28	4°♎29'49	1°06'54	retrograde	2071 Dec 02 01:25	0°♈35'23		
	2066 Oct 06 08:51	0°♎			2071 Dec 11 07:31	30°♈♉		
morning rise	2066 Oct 10 19:54	2°♎51'55		min. Earth dist.	2072 Jan 06 20:16	22°♉18'31	0.62938 AU	
	2066 Nov 21 16:48	0°♌		greatest brilliancy	2072 Jan 10 04:17	20°♉58'43	-1.4m	
	2067 Jan 06 03:54	0°♊		opposition	2072 Jan 11 01:04	20°♉37'58	4°07'06	
desc. node	2067 Feb 08 16:08	22°♊27'49		direct	2072 Feb 18 12:41	11°♉35'57		
	2067 Feb 19 19:59	0°♊			2072 Apr 23 23:07	0°♈		
	2067 Apr 05 01:36	0°♋			2072 Jun 20 10:29	0°♎		
	2067 May 19 21:50	0°♋			2072 Aug 09 12:31	0°♎		
	2067 Jul 08 21:53	0°♋			2072 Sep 24 18:18	0°♌		
retrograde	2067 Aug 31 00:18	16°♋06'06		desc. node	2072 Sep 30 12:55	3°♌53'46		
min. Earth dist.	2067 Sep 26 12:50	11°♋35'14	0.39669 AU	evening set	2072 Nov 05 11:16	28°♌53'26		
opposition	2067 Oct 02 19:54	9°♋42'25	-4°-12'-1		2072 Nov 07 00:33	0°♊		
greatest brilliancy	2067 Oct 01 17:02	10°♋02'37	-2.7m	max. Earth dist.	2072 Nov 20 06:04	9°♊32'39	2.44687 AU	
direct	2067 Nov 02 02:55	4°♋16'10			2072 Dec 17 21:27	0°♊		
asc. node	2067 Dec 10 03:11	12°♋26'55						
	2068 Jan 16 08:04	0°♉		conjunction	2072 Dec 30 02:53	9°♊14'57	0°-49'-51	
	2068 Mar 08 08:31	0°♈		minimum elong	2072 Dec 30 00:46	9°♊10'54	0°49'50	
	2068 Apr 26 11:31	0°♉			2073 Jan 26 01:48	0°♋		
	2068 Jun 14 00:16	0°♈		greatest brilliancy	2073 Feb 21 02:20	20°♋21'17	1.2m	
	2068 Aug 01 01:43	0°♎		morning rise	2073 Mar 03 10:04	28°♋28'18		
evening set	2068 Aug 17 10:38	10°♎20'15			2073 Mar 05 08:40	0°♋		
max. Earth dist.	2068 Sep 16 14:44	29°♎37'42	2.64857 AU		2073 Apr 12 14:49	0°♋		
	2068 Sep 17 04:33	0°♎			2073 May 21 17:41	0°♉		
					2073 Jul 01 14:40	0°♈		
conjunction	2068 Oct 01 21:50	9°♎33'13	0°44'48	asc. node	2073 Aug 01 00:21	21°♈08'56		
minimum elong	2068 Oct 01 22:58	9°♎35'04	0°44'47		2073 Aug 14 06:12	0°♉		
	2068 Nov 01 21:00	0°♌			2073 Oct 01 13:55	0°♈		
morning rise	2068 Nov 16 02:55	9°♌34'55			2073 Dec 04 06:56	0°♎		
	2068 Dec 15 21:37	0°♊		retrograde	2074 Jan 04 21:00	5°♎28'06		
desc. node	2068 Dec 26 15:00	7°♊29'09			2074 Feb 02 23:00	30°♎♏		
	2069 Jan 27 07:20	0°♊		opposition	2074 Feb 14 01:57	25°♏43'37	4°31'37	
	2069 Mar 09 08:46	0°♋		greatest brilliancy	2074 Feb 13 23:13	25°♏46'21	-1.2m	
	2069 Apr 18 13:35	0°♋		min. Earth dist.	2074 Feb 13 18:17	25°♏51'16	0.67645 AU	
	2069 May 28 19:05	0°♋		direct	2074 Mar 26 18:10	15°♏57'51		
	2069 Jul 09 17:30	0°♉			2074 May 21 07:28	0°♎		
	2069 Aug 27 00:52	0°♈			2074 Jul 18 12:45	0°♎		
retrograde	2069 Oct 23 06:14	18°♈04'05		desc. node	2074 Aug 18 12:02	18°♎49'23		
asc. node	2069 Oct 27 01:56	17°♈57'43			2074 Sep 04 20:18	0°♌		
min. Earth dist.	2069 Nov 22 19:09	11°♈39'58	0.52220 AU		2074 Oct 18 15:23	0°♊		
opposition	2069 Nov 30 10:19	8°♈47'18	1°42'02		2074 Nov 28 11:11	0°♊		
greatest brilliancy	2069 Nov 29 16:09	9°♈04'27	-2.0m	evening set	2075 Jan 01 14:37	26°♊15'14		
direct	2070 Jan 04 08:13	1°♈07'19			2075 Jan 06 09:39	0°♋		
	2070 Mar 30 11:23	0°♉			2075 Feb 13 10:36	0°♋		
	2070 May 23 15:43	0°♈						

conjunction	2075 Mar 09 06:50	18° ✕ 49'21	0°-56'-39		2079 Nov 02 11:23	0° ♄	
minimum elong	2075 Mar 09 09:42	18° ✕ 54'59	0°56'39		2079 Dec 21 17:46	0° ♌	
	2075 Mar 23 13:06	0° ♊			2080 Feb 12 04:12	0° ♊	
max. Earth dist.	2075 Apr 24 22:46	24° ♊ 58'02	2.38970 AU	desc. node	2080 Apr 09 08:09	26° ♊ 10'49	
	2075 May 01 14:27	0° ♋			2080 Apr 22 13:43	0° ♋	
morning rise	2075 May 18 01:40	12° ♋ 18'06		retrograde	2080 May 14 22:20	2° ♋ 48'47	
	2075 Jun 11 08:27	0° ♌			2080 Jun 05 07:23	30° ♌ ♊	
asc. node	2075 Jun 18 22:42	5° ♌ 25'25		opposition	2080 Jun 16 20:26	26° ♌ 36'46	-3°-34'-37
	2075 Jul 24 09:04	0° ♍		greatest brilliancy	2080 Jun 18 07:24	26° ♌ 08'37	-2.4m
	2075 Sep 08 05:37	0° ♎		min. Earth dist.	2080 Jun 24 22:45	24° ♌ 01'24	0.44498 AU
	2075 Oct 28 05:29	0° ♏		direct	2080 Jul 22 17:04	19° ♌ 05'24	
	2075 Dec 29 03:47	0° ♐			2080 Sep 03 07:12	0° ♋	
retrograde	2076 Feb 09 02:07	8° ♐ 45'22			2080 Oct 24 14:22	0° ♌	
	2076 Mar 18 10:41	30° ♏ ♏			2080 Dec 06 06:21	0° ♋	
opposition	2076 Mar 19 08:54	29° ♏ 38'18	3°35'03		2081 Jan 16 11:26	0° ♊	
greatest brilliancy	2076 Mar 19 23:02	29° ♏ 24'29	-1.3m	asc. node	2081 Feb 07 20:11	16° ♊ 10'25	
min. Earth dist.	2076 Mar 22 22:22	28° ♏ 14'45	0.65743 AU		2081 Feb 27 05:01	0° ♋	
direct	2076 Apr 29 20:55	19° ♏ 36'13			2081 Apr 11 07:37	0° ♌	
	2076 Jun 14 11:03	0° ♍			2081 May 26 01:21	0° ♍	
desc. node	2076 Jul 05 10:28	9° ♍ 26'58		evening set	2081 Jun 26 09:35	20° ♍ 27'30	
	2076 Aug 11 11:49	0° ♌			2081 Jul 11 04:38	0° ♎	
	2076 Sep 26 12:25	0° ♏					
	2076 Nov 07 00:28	0° ♋		conjunction	2081 Aug 13 01:25	21° ♎ 01'35	1°08'53
	2076 Dec 16 03:54	0° ♌		minimum elong	2081 Aug 13 01:24	21° ♎ 01'34	1°08'53
	2077 Jan 23 07:31	0° ♋		max. Earth dist.	2081 Aug 16 01:27	22° ♎ 56'20	2.67228 AU
	2077 Mar 02 14:00	0° ♊			2081 Aug 27 03:38	0° ♏	
evening set	2077 Mar 13 01:28	8° ♊ 05'55		morning rise	2081 Sep 27 00:35	19° ♏ 38'55	
	2077 Apr 10 21:28	0° ♋			2081 Oct 13 06:16	0° ♍	
asc. node	2077 May 05 22:39	18° ♋ 29'20			2081 Nov 29 01:54	0° ♌	
					2082 Jan 14 12:55	0° ♊	
conjunction	2077 May 15 20:34	25° ♋ 39'22	0°06'22	desc. node	2082 Feb 25 07:06	26° ♊ 59'18	
minimum elong	2077 May 15 20:07	25° ♋ 38'36	0°06'22		2082 Mar 01 23:26	0° ♋	
behind sun begin	2077 May 14 20:39	24° ♋ 56'23			2082 Apr 18 10:32	0° ♌	
behind sun end	2077 May 16 19:36	26° ♋ 20'45			2082 Jun 10 13:44	0° ♋	
	2077 May 21 22:05	0° ♌		retrograde	2082 Aug 02 04:15	14° ♋ 56'19	
max. Earth dist.	2077 Jun 23 12:10	22° ♌ 48'38	2.52339 AU	min. Earth dist.	2082 Aug 30 18:53	10° ♋ 16'24	0.37356 AU
	2077 Jul 04 00:59	0° ♍		opposition	2082 Sep 01 17:38	9° ♋ 45'07	-6°-27'-8
morning rise	2077 Jul 12 02:45	5° ♍ 27'08		greatest brilliancy	2082 Sep 01 08:45	9° ♋ 51'04	-2.9m
	2077 Aug 18 08:23	0° ♎		direct	2082 Oct 01 04:11	4° ♋ 50'45	
	2077 Oct 04 21:25	0° ♏			2082 Dec 12 10:09	0° ♊	
	2077 Nov 24 09:46	0° ♐		asc. node	2082 Dec 26 19:15	8° ♊ 14'08	
	2078 Jan 21 16:27	0° ♑			2083 Jan 31 09:07	0° ♋	
retrograde	2078 Mar 21 00:43	15° ♑ 16'21			2083 Mar 19 14:34	0° ♌	
opposition	2078 Apr 27 01:37	7° ♑ 13'44	1°08'02		2083 May 05 18:44	0° ♍	
greatest brilliancy	2078 Apr 27 13:01	7° ♑ 03'08	-1.7m		2083 Jun 22 08:21	0° ♎	
min. Earth dist.	2078 May 04 05:02	4° ♑ 34'24	0.57392 AU	evening set	2083 Aug 04 01:56	26° ♑ 54'55	
	2078 May 18 14:43	30° ♏ ♄			2083 Aug 08 23:01	0° ♏	
desc. node	2078 May 23 09:14	28° ♐ 57'14		max. Earth dist.	2083 Sep 08 07:15	19° ♏ 17'37	2.66587 AU
direct	2078 Jun 06 12:49	27° ♐ 36'45					
	2078 Jun 26 04:05	0° ♑		conjunction	2083 Sep 18 14:20	25° ♏ 53'46	0°56'06
	2078 Aug 30 16:41	0° ♊		minimum elong	2083 Sep 18 15:23	25° ♏ 55'27	0°56'06
	2078 Oct 14 13:11	0° ♋			2083 Sep 24 23:19	0° ♍	
	2078 Nov 23 23:42	0° ♌		morning rise	2083 Nov 02 02:28	24° ♍ 52'33	
	2079 Jan 01 21:43	0° ♋			2083 Nov 09 20:10	0° ♌	
	2079 Feb 09 20:05	0° ♊			2083 Dec 24 07:18	0° ♊	
	2079 Mar 21 19:47	0° ♋		desc. node	2084 Jan 13 06:49	13° ♊ 48'11	
asc. node	2079 Mar 23 21:56	1° ♋ 32'10			2084 Feb 05 09:02	0° ♋	
	2079 May 02 12:22	0° ♌			2084 Mar 18 06:46	0° ♌	
evening set	2079 May 12 14:49	7° ♌ 03'54			2084 Apr 28 12:15	0° ♋	
	2079 Jun 15 04:00	0° ♍			2084 Jun 09 04:23	0° ♊	
					2084 Jul 24 07:17	0° ♋	
conjunction	2079 Jul 05 01:18	13° ♍ 15'23	0°54'14	retrograde	2084 Oct 04 14:31	27° ♋ 16'20	
minimum elong	2079 Jul 04 23:48	13° ♍ 12'56	0°54'12	min. Earth dist.	2084 Nov 02 00:27	21° ♋ 43'29	0.46985 AU
max. Earth dist.	2079 Jul 23 21:12	25° ♍ 36'35	2.62418 AU	opposition	2084 Nov 10 06:06	18° ♋ 48'00	0°-8'-26
	2079 Jul 30 15:14	0° ♎		greatest brilliancy	2085 May 03 03:49	12° ♍ 50'15	-4.1m
morning rise	2079 Aug 22 18:33	14° ♎ 54'02		asc. node	2084 Nov 12 18:36	17° ♋ 54'52	
	2079 Sep 15 12:27	0° ♏		direct	2084 Dec 13 07:34	11° ♋ 55'50	

	2085 Feb 13 13:47	0°♂			2090 Feb 20 23:26	0°♂		
	2085 Apr 10 23:38	0°♂			2090 Mar 31 02:36	0°♂		
	2085 Jun 01 01:46	0°♂	morning rise		2090 Apr 19 20:00	15°♂17'11		
	2085 Jul 20 06:00	0°♂			2090 May 09 03:21	0°♂		
	2085 Sep 05 18:19	0°♂			2090 Jun 18 20:40	0°♂		
evening set	2085 Sep 09 03:26	2°♂10'44	asc. node		2090 Jul 05 16:05	11°♂55'26		
max. Earth dist.	2085 Oct 02 02:53	17°♂10'26	2.60603 AU		2090 Jul 31 23:23	0°♂		
	2085 Oct 21 08:59	0°♂			2090 Sep 16 08:55	0°♂		
					2090 Nov 07 15:03	0°♂		
conjunction	2085 Oct 25 11:03	2°♂45'17	0°20'32	retrograde	2091 Jan 26 01:34	25°♂54'48		
minimum elong	2085 Oct 25 11:46	2°♂46'30	0°20'31	opposition	2091 Mar 06 20:13	16°♂30'27	4°06'11	
desc. node	2085 Nov 30 05:53	27°♂23'12		greatest brilliancy	2091 Mar 07 04:46	16°♂22'00	-1.2m	
	2085 Dec 03 23:09	0°♂		min. Earth dist.	2091 Mar 08 21:35	15°♂41'41	0.67272 AU	
morning rise	2085 Dec 12 02:21	5°♂45'06		direct	2091 Apr 17 04:39	6°♂31'06		
	2086 Jan 14 16:07	0°♂			2091 Jun 30 23:36	0°♂		
	2086 Feb 23 20:58	0°♂		desc. node	2091 Jul 23 01:58	11°♂58'11		
	2086 Apr 04 03:30	0°♂			2091 Aug 21 23:54	0°♂		
	2086 May 13 06:47	0°♂			2091 Oct 05 19:34	0°♂		
	2086 Jun 22 10:00	0°♂			2091 Nov 15 22:38	0°♂		
	2086 Aug 04 08:51	0°♂			2091 Dec 24 22:39	0°♂		
	2086 Sep 24 09:14	0°♂			2092 Feb 01 00:07	0°♂		
asc. node	2086 Sep 30 16:55	3°♂00'25		greatest brilliancy	2092 Feb 14 12:00	10°♂39'32	1.2m	
retrograde	2086 Nov 17 14:09	15°♂38'08		evening set	2092 Feb 14 01:17	10°♂18'25		
min. Earth dist.	2086 Dec 21 10:46	8°♂00'49	0.59386 AU		2092 Mar 10 03:59	0°♂		
greatest brilliancy	2086 Dec 26 02:09	6°♂10'59	-1.6m		2092 Apr 18 07:55	0°♂		
opposition	2086 Dec 27 02:36	5°♂46'48	3°29'40					
	2087 Jan 12 17:10	30°♂		conjunction	2092 Apr 21 09:36	2°♂18'10	0°-20'-6	
direct	2087 Feb 02 08:57	27°♂11'00		minimum elong	2092 Apr 21 11:15	2°♂21'15	0°20'07	
	2087 Feb 24 16:34	0°♂		asc. node	2092 May 22 14:22	25°♂15'16		
	2087 May 07 12:06	0°♂			2092 May 29 04:45	0°♂		
	2087 Jun 29 22:15	0°♂		max. Earth dist.	2092 Jun 07 09:12	6°♂32'32	2.47220 AU	
	2087 Aug 17 22:05	0°♂		morning rise	2092 Jun 22 16:12	17°♂16'03		
	2087 Oct 02 20:30	0°♂			2092 Jul 11 04:59	0°♂		
desc. node	2087 Oct 18 04:16	10°♂25'29			2092 Aug 25 14:23	0°♂		
evening set	2087 Oct 19 11:40	11°♂19'29			2092 Oct 12 17:30	0°♂		
max. Earth dist.	2087 Nov 03 05:58	21°♂35'30	2.49834 AU		2092 Dec 04 10:19	0°♂		
	2087 Nov 15 03:13	0°♂			2093 Feb 22 16:13	0°♂		
				retrograde	2093 Mar 03 23:50	0°♂30'38		
conjunction	2087 Dec 09 13:22	17°♂40'48	0°-30'-46		2093 Mar 13 01:05	30°♂		
minimum elong	2087 Dec 09 11:56	17°♂38'09	0°30'45	opposition	2093 Apr 11 02:19	21°♂58'34	2°18'00	
	2087 Dec 26 04:12	0°♂		greatest brilliancy	2093 Apr 11 19:09	21°♂42'30	-1.5m	
	2088 Feb 03 13:40	0°♂		min. Earth dist.	2093 Apr 16 22:14	19°♂45'06	0.61383 AU	
morning rise	2088 Feb 04 17:18	0°♂53'25		direct	2093 May 22 05:59	12°♂04'19		
	2088 Mar 13 01:11	0°♂		desc. node	2093 Jun 09 00:31	13°♂58'55		
	2088 Apr 20 10:39	0°♂			2093 Jul 22 03:46	0°♂		
	2088 May 29 16:05	0°♂			2093 Sep 11 04:54	0°♂		
	2088 Jul 09 17:47	0°♂			2093 Oct 24 02:18	0°♂		
asc. node	2088 Aug 17 16:32	26°♂32'55			2093 Dec 02 19:16	0°♂		
	2088 Aug 23 00:21	0°♂			2094 Jan 10 07:03	0°♂		
	2088 Oct 12 22:00	0°♂			2094 Feb 17 20:48	0°♂		
retrograde	2088 Dec 22 14:08	22°♂34'46			2094 Mar 29 11:58	0°♂		
min. Earth dist.	2089 Jan 30 00:18	13°♂25'44	0.66577 AU	asc. node	2094 Apr 09 13:33	8°♂09'51		
opposition	2089 Jan 31 20:22	12°♂41'38	4°32'43	evening set	2094 Apr 21 05:44	16°♂40'17		
greatest brilliancy	2089 Jan 31 09:57	12°♂52'03	-1.3m		2094 May 09 20:31	0°♂		
direct	2089 Mar 12 19:35	3°♂09'31						
	2089 Jun 03 19:02	0°♂		conjunction	2094 Jun 17 05:44	26°♂37'11	0°39'49	
	2089 Jul 27 06:45	0°♂		minimum elong	2094 Jun 17 04:04	26°♂34'20	0°39'47	
desc. node	2089 Sep 04 02:55	24°♂27'15			2094 Jun 22 05:29	0°♂		
	2089 Sep 12 12:47	0°♂		max. Earth dist.	2094 Jul 13 04:31	14°♂01'18	2.59082 AU	
	2089 Oct 26 01:02	0°♂			2094 Aug 06 13:30	0°♂		
	2089 Dec 05 20:31	0°♂		morning rise	2094 Aug 07 13:48	0°♂39'25		
evening set	2089 Dec 08 02:25	1°♂41'48			2094 Sep 22 13:54	0°♂		
	2090 Jan 13 20:42	0°♂			2094 Nov 10 04:56	0°♂		
max. Earth dist.	2090 Jan 15 22:09	1°♂36'36	2.37599 AU		2094 Dec 31 10:11	0°♂		
					2095 Mar 01 06:14	0°♂		
conjunction	2090 Feb 08 05:27	19°♂55'56	-1°-4'-50	retrograde	2095 Apr 21 13:03	12°♂22'11		
minimum elong	2090 Feb 08 05:32	19°♂56'05	1°04'50	desc. node	2095 Apr 26 23:21	12°♂11'11		

opposition	2095 May 26 06:25	5°♏20'31	-1°-26'-46		2100 Jul 28 08:10	0°♎	
greatest brilliancy	2095 May 26 22:56	5°♏06'10	-2.1m	evening set	2100 Aug 26 16:01	18°♎30'52	
min. Earth dist.	2095 Jun 03 16:04	2°♏25'37	0.49748 AU		2100 Sep 13 14:07	0°♎	
	2095 Jun 11 10:02	30°♎		max. Earth dist.	2100 Sep 23 03:57	6°♎11'52	2.63561 AU
direct	2095 Jul 03 12:47	26°♎42'11					
	2095 Jul 26 03:46	0°♏		conjunction	2100 Oct 11 06:55	18°♎03'39	0°36'43
	2095 Sep 25 01:40	0°♏		minimum elong	2100 Oct 11 07:59	18°♎05'24	0°36'43
	2095 Nov 07 14:24	0°♎			2100 Oct 29 06:03	0°♎	
	2095 Dec 17 23:17	0°♏		morning rise	2100 Nov 26 03:31	18°♎55'57	
	2096 Jan 26 21:37	0°♎			2100 Dec 12 02:52	0°♏	
asc. node	2096 Feb 25 12:54	21°♎53'13		desc. node	2100 Dec 17 21:05	4°♏01'50	
	2096 Mar 07 16:58	0°♏					
	2096 Apr 19 02:26	0°♎					
	2096 Jun 02 07:16	0°♎					
evening set	2096 Jun 09 19:53	4°♎59'37					
	2096 Jul 18 02:27	0°♎					
conjunction	2096 Jul 29 05:26	7°♎10'11	1°06'47				
minimum elong	2096 Jul 29 04:48	7°♎09'11	1°06'46				
max. Earth dist.	2096 Aug 07 02:59	12°♎52'43	2.66003 AU				
	2096 Sep 02 23:00	0°♎					
morning rise	2096 Sep 13 05:05	6°♎30'49					
	2096 Oct 20 06:57	0°♎					
	2096 Dec 06 19:12	0°♎					
	2097 Jan 23 17:30	0°♏					
desc. node	2097 Mar 13 23:16	29°♏50'02					
	2097 Mar 14 06:05	0°♏					
	2097 May 09 13:53	0°♎					
retrograde	2097 Jun 30 22:45	13°♎48'03					
opposition	2097 Jul 31 03:37	8°♎46'49	-6°-37'-15				
greatest brilliancy	2097 Aug 01 05:38	8°♎29'09	-2.8m				
min. Earth dist.	2097 Aug 03 18:10	7°♎48'08	0.38187 AU				
direct	2097 Aug 31 06:58	3°♎21'53					
	2097 Nov 11 19:58	0°♏					
	2097 Dec 29 00:58	0°♎					
asc. node	2098 Jan 12 10:35	9°♎37'09					
	2098 Feb 11 17:42	0°♏					
	2098 Mar 28 16:27	0°♎					
	2098 May 13 14:52	0°♎					
	2098 Jun 29 11:47	0°♎					
evening set	2098 Jul 20 12:26	13°♎20'54					
	2098 Aug 15 18:26	0°♎					
max. Earth dist.	2098 Aug 30 05:10	9°♎11'07	2.67501 AU				
conjunction	2098 Sep 04 12:02	12°♎33'10	1°03'58				
minimum elong	2098 Sep 04 12:47	12°♎34'22	1°03'58				
	2098 Oct 01 18:11	0°♎					
morning rise	2098 Oct 18 19:20	11°♎00'13					
	2098 Nov 16 21:55	0°♎					
	2098 Dec 31 23:35	0°♏					
desc. node	2099 Jan 29 22:29	19°♏39'36					
	2099 Feb 14 00:00	0°♏					
	2099 Mar 29 04:49	0°♎					
	2099 May 11 06:04	0°♏					
	2099 Jun 25 06:24	0°♎					
	2099 Aug 26 01:40	0°♏					
retrograde	2099 Sep 13 23:01	2°♏29'23					
	2099 Oct 02 17:59	30°♎					
min. Earth dist.	2099 Oct 10 18:41	27°♎42'30	0.41921 AU				
greatest brilliancy	2099 Oct 17 08:54	25°♎35'18	-2.6m				
opposition	2099 Oct 18 08:06	25°♎16'33	-2°-37'-28				
direct	2099 Nov 18 11:43	19°♎20'25					
asc. node	2099 Nov 30 09:59	20°♎15'13					
	2100 Jan 02 03:46	0°♏					
	2100 Mar 01 19:44	0°♎					
	2100 Apr 21 15:49	0°♎					
	2100 Jun 09 22:19	0°♎					

conjunction	2100 Oct 11 06:55	18°♂03'39	0°36'43			2105 Jun 27 12:23	0°♂	
minimum elong	2100 Oct 11 07:59	18°♂05'24	0°36'43	asc. node		2105 Jul 23 07:34	18°♂06'57	
	2100 Oct 29 06:03	0°♂				2105 Aug 09 20:41	0°♂	
morning rise	2100 Nov 26 03:31	18°♂55'57				2105 Sep 26 05:04	0°♂	
	2100 Dec 12 02:52	0°♂				2105 Nov 22 03:47	0°♂	
desc. node	2100 Dec 17 21:05	4°♂01'50		retrograde		2106 Jan 13 13:13	13°♂14'36	
	2101 Jan 23 06:29	0°♂		opposition		2106 Feb 22 15:32	3°♂36'25	4°25'35
	2101 Mar 04 23:56	0°♂		greatest brilliancy		2106 Feb 22 17:04	3°♂34'53	-1.2m
	2101 Apr 13 19:44	0°♂		min. Earth dist.		2106 Feb 23 04:25	3°♂23'35	0.67788 AU
	2101 May 23 13:29	0°♂				2106 Mar 03 22:24	30°♂♂	
	2101 Jul 03 14:14	0°♂		direct		2106 Apr 04 14:38	23°♂44'39	
	2101 Aug 17 21:01	0°♂				2106 May 09 12:11	0°♂	
asc. node	2101 Oct 18 10:24	27°♂20'31				2106 Jul 13 03:58	0°♂	
retrograde	2101 Nov 02 22:08	28°♂57'33		desc. node		2106 Aug 09 17:23	16°♂13'40	
min. Earth dist.	2101 Dec 04 15:43	22°♂05'58	0.54941 AU			2106 Aug 31 12:41	0°♂	
opposition	2101 Dec 11 15:41	19°♂24'13	2°29'40			2106 Oct 14 15:48	0°♂	
greatest brilliancy	2101 Dec 10 16:39	19°♂46'28	-1.8m			2106 Nov 24 14:27	0°♂	
direct	2102 Jan 16 11:13	11°♂22'04				2107 Jan 02 13:37	0°♂	
	2102 Mar 22 07:23	0°♂		evening set		2107 Jan 17 18:35	11°♂56'49	
	2102 May 18 15:15	0°♂				2107 Feb 09 14:45	0°♂	
	2102 Jul 08 19:46	0°♂				2107 Mar 19 17:26	0°♂	
	2102 Aug 26 02:05	0°♂						
evening set	2102 Oct 04 01:24	25°♂26'56		conjunction		2107 Mar 26 17:43	5°♂27'30	0°-45'-41
	2102 Oct 10 20:11	0°♂		minimum elong		2107 Mar 26 20:59	5°♂33'51	0°45'40
max. Earth dist.	2102 Oct 21 04:48	7°♂01'29	2.54534 AU			2107 Apr 27 18:55	0°♂	
desc. node	2102 Nov 04 19:42	17°♂05'21		max. Earth dist.		2107 May 17 13:15	14°♂43'59	2.41775 AU
				morning rise		2107 Jun 02 06:19	26°♂12'11	
conjunction	2102 Nov 21 15:50	28°♂54'22	0°-10'-3			2107 Jun 07 12:49	0°♂	
minimum elong	2102 Nov 21 15:23	28°♂53'35	0°10'04	asc. node		2107 Jun 10 07:23	1°♂59'15	
behind sun begin	2102 Nov 20 22:29	28°♂23'41				2107 Jul 20 11:45	0°♂	
behind sun end	2102 Nov 22 08:17	29°♂23'31				2107 Sep 04 01:57	0°♂	
	2102 Nov 23 04:50	0°♂				2107 Oct 23 03:55	0°♂	
	2103 Jan 03 11:06	0°♂				2107 Dec 19 00:10	0°♂	
morning rise	2103 Jan 13 00:54	7°♂09'06		retrograde		2108 Feb 18 11:04	16°♂45'54	
	2103 Feb 12 02:52	0°♂		opposition		2108 Mar 28 09:11	7°♂50'01	3°10'52
	2103 Mar 22 20:20	0°♂		greatest brilliancy		2108 Mar 29 01:21	7°♂34'19	-1.4m
	2103 Apr 30 10:54	0°♂		min. Earth dist.		2108 Apr 01 18:43	6°♂07'33	0.64456 AU
	2103 Jun 08 21:28	0°♂				2108 Apr 20 10:53	30°♂♂	
	2103 Jul 20 08:47	0°♂		direct		2108 May 08 20:07	27°♂48'29	
	2103 Sep 03 20:12	0°♂				2108 May 28 05:08	0°♂	
asc. node	2103 Sep 05 09:10	0°♂56'39		desc. node		2108 Jun 26 16:47	9°♂42'35	
	2103 Oct 31 04:14	0°♂				2108 Aug 05 13:56	0°♂	
retrograde	2103 Dec 11 01:32	9°♂06'56				2108 Sep 21 20:22	0°♂	
min. Earth dist.	2104 Jan 16 19:49	0°♂30'04	0.64504 AU			2108 Nov 02 18:08	0°♂	
	2104 Jan 18 01:55	30°♂♂				2108 Dec 12 01:27	0°♂	
greatest brilliancy	2104 Jan 19 10:44	29°♂27'07	-1.4m			2109 Jan 19 07:18	0°♂	
opposition	2104 Jan 20 04:14	29°♂09'35	4°20'54			2109 Feb 26 15:41	0°♂	
direct	2104 Feb 28 05:28	19°♂55'34		evening set		2109 Mar 29 01:24	23°♂15'24	
	2104 Apr 14 00:33	0°♂				2109 Apr 07 00:59	0°♂	
	2104 Jun 15 06:40	0°♂		asc. node		2109 Apr 27 05:38	14°♂54'56	
	2104 Aug 05 08:32	0°♂				2109 May 18 03:30	0°♂	
	2104 Sep 20 22:42	0°♂						
desc. node	2104 Sep 21 18:31	0°♂33'11		conjunction		2109 May 29 08:16	7°♂55'36	0°20'01
	2104 Nov 03 07:30	0°♂		minimum elong		2109 May 29 07:04	7°♂53'30	0°20'00
evening set	2104 Nov 17 13:12	10°♂16'13				2109 Jun 30 07:28	0°♂	
max. Earth dist.	2104 Dec 05 02:37	23°♂12'20	2.41880 AU	max. Earth dist.		2109 Jul 02 04:08	1°♂15'40	2.54956 AU
	2104 Dec 14 04:26	0°♂		morning rise		2109 Jul 23 04:20	15°♂19'32	
						2109 Aug 14 13:50	0°♂	
conjunction	2105 Jan 13 15:05	23°♂15'30	0°-58'-17			2109 Sep 30 20:19	0°♂	
minimum elong	2105 Jan 13 13:09	23°♂11'45	0°58'17			2109 Nov 19 11:40	0°♂	
	2105 Jan 22 07:26	0°♂				2110 Jan 13 03:01	0°♂	
	2105 Mar 01 12:39	0°♂		retrograde		2110 Apr 01 14:51	24°♂46'28	
morning rise	2105 Mar 21 06:42	15°♂33'34		opposition		2110 May 07 22:16	17°♂03'03	0°18'19
	2105 Apr 08 17:11	0°♂		greatest brilliancy		2110 May 07 13:00	17°♂11'29	-1.8m
	2105 May 17 18:13	0°♂		desc. node		2110 May 14 15:35	14°♂35'28	

min. Earth dist.	2110 May 15 15:48	14° \mathbb{M} 13'40	0.54855 AU		2115 Sep 21 09:13	0° \mathbb{L}	
direct	2110 Jun 16 18:58	7° \mathbb{M} 41'09					
	2110 Aug 22 17:49	0° \mathbb{Z}		conjunction	2115 Sep 27 18:16	4° \mathbb{L} 07'18	0°49'54
	2110 Oct 08 22:36	0° \mathbb{Z}		minimum elong	2115 Sep 27 19:23	4° \mathbb{L} 09'07	0°49'54
	2110 Nov 19 02:33	0° \approx			2115 Nov 06 04:23	0° \mathbb{M}	
	2110 Dec 28 09:18	0° \mathbb{H}		morning rise	2115 Nov 11 13:59	3° \mathbb{M} 36'17	
	2111 Feb 05 13:47	0° \mathbb{Y}			2115 Dec 20 10:14	0° \mathbb{Z}	
asc. node	2111 Mar 15 04:18	28° \mathbb{Y} 06'11		desc. node	2116 Jan 04 12:41	10° \mathbb{Z} 29'15	
	2111 Mar 17 18:21	0° \mathbb{B}			2116 Feb 01 03:32	0° \mathbb{Z}	
	2111 Apr 28 15:17	0° \mathbb{H}			2116 Mar 13 13:42	0° \approx	
evening set	2111 May 24 18:50	18° \mathbb{H} 04'08			2116 Apr 23 04:22	0° \mathbb{H}	
	2111 Jun 11 10:17	0° \mathbb{G}			2116 Jun 02 21:57	0° \mathbb{Y}	
					2116 Jul 15 18:51	0° \mathbb{B}	
conjunction	2111 Jul 15 13:32	22° \mathbb{G} 34'39	1°00'15		2116 Sep 06 07:30	0° \mathbb{H}	
minimum elong	2111 Jul 15 12:20	22° \mathbb{G} 32'40	1°00'14	retrograde	2116 Oct 16 13:06	9° \mathbb{H} 55'20	
	2111 Jul 26 23:25	0° \mathbb{Q}		asc. node	2116 Nov 04 01:50	7° \mathbb{H} 24'43	
max. Earth dist.	2111 Jul 30 16:03	2° \mathbb{Q} 23'31	2.63942 AU	min. Earth dist.	2116 Nov 15 01:53	3° \mathbb{H} 54'14	0.49901 AU
morning rise	2111 Sep 01 02:48	23° \mathbb{Q} 12'23		opposition	2116 Nov 23 02:06	0° \mathbb{H} 57'14	0°59'49
	2111 Sep 11 19:24	0° \mathbb{M}		greatest brilliancy	2116 Nov 22 14:16	1° \mathbb{H} 08'09	-2.1m
	2111 Oct 29 11:37	0° \mathbb{L}			2116 Nov 25 16:48	30° \mathbb{R} \mathbb{B}	
	2111 Dec 16 23:26	0° \mathbb{M}		direct	2116 Dec 27 05:30	23° \mathbb{B} 37'19	
	2112 Feb 05 06:08	0° \mathbb{Z}			2117 Jan 30 08:22	0° \mathbb{H}	
desc. node	2112 Mar 31 14:12	29° \mathbb{Z} 24'25			2117 Apr 04 21:15	0° \mathbb{G}	
	2112 Apr 01 21:02	0° \mathbb{Z}			2117 May 27 13:23	0° \mathbb{Q}	
retrograde	2112 May 31 13:44	16° \mathbb{Z} 31'09			2117 Jul 16 08:02	0° \mathbb{M}	
opposition	2112 Jul 02 11:05	10° \mathbb{Z} 48'15	-4°-51'-19		2117 Sep 02 02:13	0° \mathbb{L}	
greatest brilliancy	2112 Jul 04 02:25	10° \mathbb{Z} 18'28	-2.6m	evening set	2117 Sep 18 15:51	10° \mathbb{L} 43'14	
min. Earth dist.	2112 Jul 09 16:40	8° \mathbb{Z} 37'52	0.41835 AU	max. Earth dist.	2117 Oct 09 10:42	24° \mathbb{L} 25'54	2.58628 AU
direct	2112 Aug 05 15:11	4° \mathbb{Z} 03'05			2117 Oct 17 18:13	0° \mathbb{M}	
	2112 Oct 15 01:41	0° \approx					
	2112 Nov 29 15:06	0° \mathbb{H}		conjunction	2117 Nov 04 14:36	12° \mathbb{M} 07'52	0°09'54
	2113 Jan 11 01:26	0° \mathbb{Y}		minimum elong	2117 Nov 04 14:59	12° \mathbb{M} 08'31	0°09'53
asc. node	2113 Jan 30 04:02	13° \mathbb{Y} 34'16		behind sun begin	2117 Nov 03 22:49	11° \mathbb{M} 40'47	
	2113 Feb 22 12:14	0° \mathbb{B}		behind sun end	2117 Nov 05 07:10	12° \mathbb{M} 36'16	
	2113 Apr 07 02:23	0° \mathbb{H}		desc. node	2117 Nov 21 11:01	23° \mathbb{M} 48'12	
	2113 May 22 03:53	0° \mathbb{G}			2117 Nov 30 06:37	0° \mathbb{Z}	
evening set	2113 Jul 06 09:54	29° \mathbb{G} 17'59		morning rise	2117 Dec 23 14:46	16° \mathbb{Z} 41'21	
	2113 Jul 07 12:07	0° \mathbb{Q}			2118 Jan 10 20:02	0° \mathbb{Z}	
					2118 Feb 19 20:14	0° \approx	
conjunction	2113 Aug 22 08:06	29° \mathbb{Q} 13'57	1°08'11		2118 Mar 30 21:45	0° \mathbb{H}	
minimum elong	2113 Aug 22 08:24	29° \mathbb{Q} 14'26	1°08'11		2118 May 08 19:41	0° \mathbb{Y}	
max. Earth dist.	2113 Aug 22 07:35	29° \mathbb{Q} 13'07	2.67559 AU		2118 Jun 17 14:46	0° \mathbb{B}	
	2113 Aug 23 13:04	0° \mathbb{M}			2118 Jul 29 19:21	0° \mathbb{H}	
morning rise	2113 Oct 05 22:20	27° \mathbb{M} 39'19			2118 Sep 15 17:36	0° \mathbb{G}	
	2113 Oct 09 14:15	0° \mathbb{L}		asc. node	2118 Sep 22 01:38	3° \mathbb{G} 27'51	
	2113 Nov 25 03:26	0° \mathbb{M}		retrograde	2118 Nov 27 00:28	24° \mathbb{G} 47'58	
	2114 Jan 10 00:32	0° \mathbb{Z}		min. Earth dist.	2118 Dec 31 22:49	16° \mathbb{G} 47'53	0.61458 AU
desc. node	2114 Feb 16 13:46	24° \mathbb{Z} 48'55		opposition	2119 Jan 05 19:10	14° \mathbb{G} 52'10	3°53'58
	2114 Feb 24 09:29	0° \mathbb{Z}		greatest brilliancy	2119 Jan 04 20:15	15° \mathbb{G} 15'01	-1.5m
	2114 Apr 10 18:28	0° \approx		direct	2119 Feb 12 17:46	6° \mathbb{G} 01'08	
	2114 May 27 21:16	0° \mathbb{H}			2119 Apr 30 19:25	0° \mathbb{Q}	
	2114 Jul 28 21:54	0° \mathbb{Y}			2119 Jun 25 08:23	0° \mathbb{M}	
retrograde	2114 Aug 20 01:56	3° \mathbb{Y} 12'09			2119 Aug 13 23:40	0° \mathbb{L}	
	2114 Sep 11 09:06	30° \mathbb{R} \mathbb{H}			2119 Sep 29 03:32	0° \mathbb{M}	
min. Earth dist.	2114 Sep 16 01:01	28° \mathbb{H} 44'48	0.38284 AU	desc. node	2119 Oct 09 10:17	6° \mathbb{M} 57'29	
opposition	2114 Sep 20 16:32	27° \mathbb{H} 26'19	-5°-20'-20	evening set	2119 Oct 30 11:48	21° \mathbb{M} 31'41	
greatest brilliancy	2114 Sep 19 18:00	27° \mathbb{H} 42'15	-2.8m		2119 Nov 11 11:05	0° \mathbb{Z}	
direct	2114 Oct 20 09:26	22° \mathbb{H} 19'59		max. Earth dist.	2119 Nov 13 19:26	1° \mathbb{Z} 40'36	2.47001 AU
	2114 Nov 25 19:35	0° \mathbb{Y}					
asc. node	2114 Dec 18 03:06	9° \mathbb{Y} 53'21		conjunction	2119 Dec 22 09:59	29° \mathbb{Z} 58'26	0°-42'-8
	2115 Jan 23 20:12	0° \mathbb{B}		minimum elong	2119 Dec 22 08:03	29° \mathbb{Z} 54'50	0°42'08
	2115 Mar 14 06:01	0° \mathbb{H}			2119 Dec 22 10:49	0° \mathbb{Z}	
	2115 May 01 09:17	0° \mathbb{G}			2120 Jan 30 17:57	0° \approx	
	2115 Jun 18 10:45	0° \mathbb{Q}		morning rise	2120 Feb 20 21:24	16° \approx 28'46	
	2115 Aug 05 07:08	0° \mathbb{M}			2120 Mar 09 03:00	0° \mathbb{H}	
evening set	2115 Aug 13 07:54	5° \mathbb{M} 04'17		greatest brilliancy	2120 Apr 14 13:31	28° \mathbb{H} 32'45	1.2m
max. Earth dist.	2115 Sep 14 17:15	25° \mathbb{M} 42'31	2.65739 AU		2120 Apr 16 10:21	0° \mathbb{Y}	

	2120 May 25 13:25	0°♄			2125 Apr 23 14:57	30°♄	
	2120 Jul 05 10:48	0°♂		min. Earth dist.	2125 Apr 27 14:24	28°♄30'11	0.59284 AU
asc. node	2120 Aug 09 00:12	23°♂53'09		direct	2125 May 31 20:17	21°♄12'25	
	2120 Aug 18 05:53	0°♄		desc. node	2125 May 31 06:34	21°♄12'33	
	2120 Oct 06 07:20	0°♂			2125 Jul 10 21:01	0°♄	
	2120 Dec 22 10:08	0°♄			2125 Sep 05 07:04	0°♄	
retrograde	2120 Dec 31 06:06	0°♄28'55			2125 Oct 19 05:27	0°♄	
	2121 Jan 08 19:40	30°♄			2125 Nov 28 08:07	0°♄	
min. Earth dist.	2121 Feb 08 11:49	21°♄03'56	0.67295 AU		2126 Jan 06 01:10	0°♄	
opposition	2121 Feb 09 11:32	20°♄40'13	4°33'30		2126 Feb 13 18:59	0°♄	
greatest brilliancy	2121 Feb 09 05:23	20°♄46'22	-1.2m		2126 Mar 25 13:39	0°♄	
direct	2121 Mar 21 20:07	11°♄00'03		asc. node	2126 Mar 31 21:40	4°♄40'15	
	2121 May 27 15:14	0°♄		evening set	2126 May 04 16:09	29°♄01'35	
	2121 Jul 22 14:28	0°♄			2126 May 06 01:11	0°♂	
desc. node	2121 Aug 26 09:41	21°♄28'41			2126 Jun 18 12:26	0°♄	
	2121 Sep 08 12:13	0°♄					
	2121 Oct 22 05:37	0°♄		conjunction	2126 Jun 28 14:36	6°♄46'40	0°48'47
	2121 Dec 02 02:26	0°♄		minimum elong	2126 Jun 28 12:58	6°♄43'56	0°48'46
evening set	2121 Dec 22 12:58	15°♄35'37		max. Earth dist.	2126 Jul 20 11:15	21°♄15'06	2.61020 AU
	2122 Jan 10 02:10	0°♄			2126 Aug 02 20:55	0°♄	
	2122 Feb 17 03:52	0°♄		morning rise	2126 Aug 17 09:32	9°♄23'14	
					2126 Sep 18 18:21	0°♄	
conjunction	2122 Feb 25 10:49	6°♄33'12	-1°-2'-6		2126 Nov 05 23:02	0°♄	
minimum elong	2122 Feb 25 12:38	6°♄36'48	1°02'06		2126 Dec 25 22:12	0°♄	
max. Earth dist.	2122 Mar 24 19:14	28°♄04'48	2.37284 AU		2127 Feb 18 14:12	0°♄	
	2122 Mar 27 06:12	0°♄		desc. node	2127 Apr 18 05:41	22°♄12'00	
	2122 May 05 06:15	0°♄		retrograde	2127 May 05 18:26	23°♄57'35	
morning rise	2122 May 07 05:46	1°♄29'39		opposition	2127 Jun 08 12:55	17°♄22'15	-2°-37'-15
	2122 Jun 14 22:29	0°♂		greatest brilliancy	2127 Jun 09 16:58	16°♄58'46	-2.3m
asc. node	2122 Jun 26 22:04	8°♂32'35		min. Earth dist.	2127 Jun 16 22:37	14°♄34'16	0.46831 AU
	2122 Jul 27 22:13	0°♄		direct	2127 Jul 15 13:33	9°♄17'47	
	2122 Sep 11 21:36	0°♄			2127 Sep 15 12:17	0°♄	
	2122 Nov 01 13:39	0°♄			2127 Nov 01 03:05	0°♄	
	2123 Jan 08 23:32	0°♄			2127 Dec 12 13:28	0°♄	
retrograde	2123 Feb 04 00:53	3°♄42'51			2128 Jan 22 02:18	0°♄	
	2123 Feb 28 03:54	30°♄		asc. node	2128 Feb 16 19:48	18°♄49'27	
opposition	2123 Mar 15 13:21	24°♄27'43	3°49'16		2128 Mar 03 07:58	0°♄	
greatest brilliancy	2123 Mar 16 01:14	24°♄16'02	-1.3m		2128 Apr 15 01:09	0°♂	
min. Earth dist.	2123 Mar 18 10:53	23°♄19'23	0.66559 AU		2128 May 29 11:47	0°♄	
direct	2123 Apr 26 00:10	14°♄26'08		evening set	2128 Jun 20 10:48	14°♄26'30	
	2123 Jun 22 23:37	0°♄			2128 Jul 14 10:27	0°♄	
desc. node	2123 Jul 14 08:06	10°♄35'01					
	2123 Aug 16 23:57	0°♄		conjunction	2128 Aug 07 19:36	15°♄38'54	1°08'31
	2123 Oct 01 12:44	0°♄		minimum elong	2128 Aug 07 19:20	15°♄38'29	1°08'30
	2123 Nov 11 22:01	0°♄		max. Earth dist.	2128 Aug 13 10:59	19°♄15'04	2.66784 AU
	2123 Dec 21 00:28	0°♄			2128 Aug 30 07:44	0°♄	
	2124 Jan 28 03:04	0°♄		morning rise	2128 Sep 22 04:05	14°♄31'35	
evening set	2124 Mar 01 23:53	26°♄37'34			2128 Oct 16 12:27	0°♄	
	2124 Mar 06 07:50	0°♄			2128 Dec 02 14:51	0°♄	
	2124 Apr 14 12:34	0°♄			2129 Jan 18 15:49	0°♄	
				desc. node	2129 Mar 05 04:40	28°♄44'17	
conjunction	2124 May 06 15:22	16°♄24'10	0°-4'-44		2129 Mar 07 05:20	0°♄	
minimum elong	2124 May 06 15:44	16°♄24'50	0°04'45		2129 Apr 26 04:54	0°♄	
behind sun begin	2124 May 05 14:23	15°♄38'24			2129 Jul 05 03:31	0°♄	
behind sun end	2124 May 07 17:06	17°♄11'13		retrograde	2129 Jul 20 03:44	1°♄25'43	
asc. node	2124 May 13 22:07	21°♄42'43			2129 Aug 04 07:50	30°♄	
	2124 May 25 10:02	0°♂		opposition	2129 Aug 19 07:36	26°♄27'27	-6°-49'-55
max. Earth dist.	2124 Jun 18 02:22	16°♂42'42	2.50101 AU	greatest brilliancy	2129 Aug 19 14:44	26°♄22'42	-2.9m
morning rise	2124 Jul 05 01:11	28°♂22'58		min. Earth dist.	2129 Aug 19 21:42	26°♄18'05	0.37328 AU
	2124 Jul 07 10:11	0°♄		direct	2129 Sep 18 05:25	21°♄27'51	
	2124 Aug 21 16:42	0°♄			2129 Oct 26 01:50	0°♄	
	2124 Oct 08 09:36	0°♄			2129 Dec 20 22:20	0°♄	
	2124 Nov 28 15:05	0°♄		asc. node	2130 Jan 03 18:43	8°♄39'24	
	2125 Jan 29 22:03	0°♄			2130 Feb 05 21:56	0°♄	
retrograde	2125 Mar 14 11:50	9°♄15'16			2130 Mar 23 22:31	0°♂	
opposition	2125 Apr 21 00:46	0°♄58'45	1°39'36		2130 May 09 11:31	0°♄	
greatest brilliancy	2125 Apr 21 15:21	0°♄45'01	-1.6m		2130 Jun 25 16:43	0°♄	

evening set	2130 Jul 29 21:43	21°♏37'06			2135 Jun 03 14:56	0°♎	
	2130 Aug 12 03:30	0°♐			2135 Jul 14 18:28	0°♐	
max. Earth dist.	2130 Sep 05 10:53	15°♐27'00	2.67099 AU	asc. node	2135 Aug 26 15:59	28°♐54'53	
					2135 Aug 28 08:53	0°♑	
conjunction	2130 Sep 13 13:48	20°♐38'21	0°59'48		2135 Oct 19 22:51	0°♒	
minimum elong	2130 Sep 13 14:45	20°♐39'52	0°59'48	retrograde	2135 Dec 18 21:46	17°♒23'09	
	2130 Sep 28 03:50	0°♑		min. Earth dist.	2136 Jan 25 14:19	8°♒27'44	0.65780 AU
morning rise	2130 Oct 27 22:20	19°♑19'15		opposition	2136 Jan 28 02:27	7°♒27'28	4°29'35
	2130 Nov 13 04:06	0°♒		greatest brilliancy	2136 Jan 27 12:45	7°♒41'12	-1.3m
	2130 Dec 27 21:55	0°♑			2136 Feb 19 07:17	30°♒♑	
desc. node	2131 Jan 21 04:15	16°♑38'19		direct	2136 Mar 07 15:55	28°♑02'50	
	2131 Feb 09 09:30	0°♑			2136 Mar 26 07:28	0°♒	
	2131 Mar 23 19:54	0°♑			2136 Jun 08 15:09	0°♐	
	2131 May 04 17:34	0°♑			2136 Jul 31 01:26	0°♑	
	2131 Jun 16 11:00	0°♑		desc. node	2136 Sep 12 00:39	27°♑18'55	
	2131 Aug 03 14:37	0°♎			2136 Sep 16 01:52	0°♒	
retrograde	2131 Sep 27 15:44	17°♎27'59			2136 Oct 29 13:54	0°♑	
min. Earth dist.	2131 Oct 25 05:06	12°♎17'38	0.44644 AU	evening set	2136 Nov 29 09:11	22°♑27'18	
opposition	2131 Nov 02 09:15	9°♎30'19	-1°-8'-5		2136 Dec 09 11:07	0°♑	
greatest brilliancy	2131 Nov 01 21:01	9°♎40'45	-2.4m	max. Earth dist.	2136 Dec 23 20:45	10°♑55'40	2.39274 AU
asc. node	2131 Nov 21 18:30	4°♎09'29			2137 Jan 17 13:15	0°♑	
direct	2131 Dec 04 13:46	3°♎02'35					
	2132 Feb 22 01:49	0°♐		conjunction	2137 Jan 28 04:32	8°♑19'10	-1°-3'-35
	2132 Apr 15 12:41	0°♑		minimum elong	2137 Jan 28 03:28	8°♑17'05	1°03'36
	2132 Jun 04 17:45	0°♒			2137 Feb 24 17:11	0°♑	
	2132 Jul 23 13:40	0°♐			2137 Apr 03 20:37	0°♑	
evening set	2132 Sep 03 21:35	26°♐43'38		morning rise	2137 Apr 07 13:12	2°♑52'38	
	2132 Sep 08 23:49	0°♑			2137 May 12 20:38	0°♎	
max. Earth dist.	2132 Sep 28 21:56	12°♑55'59	2.62028 AU		2137 Jun 22 12:43	0°♐	
				asc. node	2137 Jul 13 15:48	14°♐56'46	
conjunction	2132 Oct 19 20:05	26°♑46'08	0°27'40		2137 Aug 04 15:44	0°♑	
minimum elong	2132 Oct 19 20:58	26°♑47'38	0°27'40		2137 Sep 20 07:04	0°♒	
	2132 Oct 24 15:58	0°♒			2137 Nov 12 20:59	0°♐	
morning rise	2132 Dec 05 13:49	28°♒42'44		retrograde	2138 Jan 21 07:03	20°♐58'54	
	2132 Dec 07 09:57	0°♑		opposition	2138 Mar 02 05:11	11°♐28'00	4°15'30
desc. node	2132 Dec 08 03:30	0°♑30'46		greatest brilliancy	2138 Mar 02 10:45	11°♐22'29	-1.2m
	2133 Jan 18 08:16	0°♑		min. Earth dist.	2138 Mar 03 14:19	10°♐55'07	0.67632 AU
	2133 Feb 27 18:59	0°♑		direct	2138 Apr 12 09:30	1°♐31'28	
	2133 Apr 08 07:00	0°♑			2138 Jul 06 05:12	0°♑	
	2133 May 17 15:41	0°♑		desc. node	2138 Jul 30 23:47	13°♑57'35	
	2133 Jun 27 01:38	0°♎			2138 Aug 26 01:11	0°♒	
	2133 Aug 09 16:39	0°♐			2138 Oct 09 14:53	0°♑	
	2133 Oct 03 11:33	0°♑			2138 Nov 19 17:05	0°♑	
asc. node	2133 Oct 08 16:49	2°♑03'21			2138 Dec 28 17:19	0°♑	
retrograde	2133 Nov 12 01:55	9°♑09'48		evening set	2139 Feb 02 13:11	28°♑14'25	
min. Earth dist.	2133 Dec 15 00:10	1°♑51'45	0.57508 AU		2139 Feb 04 18:34	0°♑	
	2133 Dec 19 18:27	30°♒♐			2139 Mar 14 21:25	0°♑	
greatest brilliancy	2133 Dec 20 05:36	29°♐49'02	-1.7m				
opposition	2133 Dec 21 06:25	29°♐24'40	3°07'47	conjunction	2139 Apr 11 16:01	21°♑25'58	0°-31'-41
direct	2134 Jan 26 21:32	21°♐02'48		minimum elong	2139 Apr 11 18:36	21°♑30'55	0°31'39
	2134 Mar 10 01:38	0°♑			2139 Apr 22 23:20	0°♎	
	2134 May 12 04:36	0°♒		asc. node	2139 May 31 14:29	28°♎28'19	
	2134 Jul 03 14:13	0°♐		max. Earth dist.	2139 May 31 14:43	28°♎28'45	2.44786 AU
	2134 Aug 21 07:14	0°♑			2139 Jun 02 17:28	0°♐	
	2134 Oct 06 04:59	0°♒		morning rise	2139 Jun 15 08:52	9°♐00'16	
evening set	2134 Oct 13 05:52	4°♒45'17			2139 Jul 15 15:37	0°♑	
desc. node	2134 Oct 26 01:52	13°♒32'26			2139 Aug 30 01:02	0°♒	
max. Earth dist.	2134 Oct 28 21:57	15°♒30'06	2.52015 AU		2139 Oct 17 10:53	0°♐	
	2134 Nov 18 13:47	0°♑			2139 Dec 10 09:57	0°♑	
				retrograde	2140 Feb 27 04:43	25°♑00'04	
conjunction	2134 Dec 02 02:10	9°♑41'17	0°-21'-57	opposition	2140 Apr 05 16:16	16°♑16'49	2°41'46
minimum elong	2134 Dec 02 01:09	9°♑39'27	0°21'57	greatest brilliancy	2140 Apr 06 09:13	16°♑00'29	-1.4m
	2134 Dec 29 18:08	0°♑		min. Earth dist.	2140 Apr 10 20:53	14°♑16'48	0.62881 AU
morning rise	2135 Jan 25 22:10	20°♑30'36		direct	2140 May 16 23:46	6°♑18'11	
	2135 Feb 07 07:03	0°♑		desc. node	2140 Jun 16 22:09	11°♑37'36	
	2135 Mar 17 21:13	0°♑			2140 Jul 28 15:34	0°♒	
	2135 Apr 25 08:26	0°♑			2140 Sep 15 20:53	0°♑	

	2140 Oct 28 08:19	0°☾		conjunction	2145 Aug 30 11:16	7°☿20'10	1°06'10
	2140 Dec 06 21:27	0°≈		minimum elong	2145 Aug 30 11:51	7°☿21'06	1°06'10
	2141 Jan 14 06:20	0°☿			2145 Oct 04 22:55	0°♊	
	2141 Feb 21 16:57	0°☿		morning rise	2145 Oct 13 20:06	5°♊42'35	
	2141 Apr 02 04:24	0°♊			2145 Nov 20 06:59	0°♋	
evening set	2141 Apr 12 01:52	7°♊20'15			2146 Jan 04 17:19	0°♌	
asc. node	2141 Apr 17 13:23	11°♊21'57		desc. node	2146 Feb 06 20:13	22°♌14'38	
	2141 May 13 08:45	0°♋			2146 Feb 18 07:06	0°☾	
					2146 Apr 03 07:47	0°≈	
conjunction	2141 Jun 09 22:28	19°♋18'13	0°32'03		2146 May 17 16:39	0°☿	
minimum elong	2141 Jun 09 20:52	19°♋15'28	0°32'03		2146 Jul 04 22:16	0°☿	
	2141 Jun 25 14:07	0°☾		retrograde	2146 Sep 04 06:02	20°☿38'40	
max. Earth dist.	2141 Jul 09 06:19	9°☾12'21	2.57324 AU	min. Earth dist.	2146 Sep 30 19:52	16°☿05'47	0.40020 AU
morning rise	2141 Aug 01 17:10	24°☾42'36		greatest brilliancy	2146 Oct 06 07:17	14°☿26'04	-2.7m
	2141 Aug 09 19:55	0°♌		opposition	2146 Oct 07 09:52	14°☿05'46	-3°-50'-2
	2141 Sep 25 21:36	0°♍		direct	2146 Nov 06 19:37	8°☿34'24	
	2141 Nov 13 20:54	0°♎		asc. node	2146 Dec 08 09:43	14°☿24'30	
	2142 Jan 05 05:15	0°♏			2147 Jan 13 00:38	0°♊	
	2142 Mar 13 10:20	0°♌			2147 Mar 07 06:31	0°♋	
retrograde	2142 Apr 13 02:51	4°♌57'19			2147 Apr 25 17:53	0°☾	
desc. node	2142 May 04 20:44	1°♌59'01			2147 Jun 13 10:20	0°♌	
	2142 May 11 13:19	30°♏♋			2147 Jul 31 14:10	0°♍	
opposition	2142 May 18 13:42	27°♏35'50	0°-39'-4	evening set	2147 Aug 21 12:55	13°♍13'05	
greatest brilliancy	2142 May 18 21:12	27°♏29'10	-2.0m		2147 Sep 16 18:58	0°♎	
min. Earth dist.	2142 May 26 17:32	24°♏41'25	0.52089 AU	max. Earth dist.	2147 Sep 20 03:59	2°♎10'43	2.64644 AU
direct	2142 Jun 26 14:42	18°♏35'20					
	2142 Aug 10 10:14	0°♌		conjunction	2147 Oct 06 00:17	12°♎28'34	0°42'37
	2142 Oct 01 11:10	0°☾		minimum elong	2147 Oct 06 01:24	12°♎30'23	0°42'36
	2142 Nov 12 19:07	0°≈			2147 Nov 01 13:00	0°♏	
	2142 Dec 22 14:54	0°☿		morning rise	2147 Nov 20 07:40	12°♏38'25	
	2143 Jan 31 03:53	0°☿			2147 Dec 15 14:40	0°♌	
asc. node	2143 Mar 05 12:47	24°☿48'44		desc. node	2147 Dec 25 18:38	7°♌05'23	
	2143 Mar 12 15:14	0°♊			2148 Jan 27 00:48	0°☾	
	2143 Apr 23 17:23	0°♋			2148 Mar 08 01:56	0°≈	
evening set	2143 Jun 04 06:03	28°♋22'16			2148 Apr 17 05:29	0°☿	
	2143 Jun 06 16:28	0°☾			2148 May 27 07:56	0°☿	
	2143 Jul 22 07:43	0°♌			2148 Jul 07 22:32	0°♊	
					2148 Aug 24 00:32	0°♋	
conjunction	2143 Jul 24 15:02	1°♌29'30	1°04'35	asc. node	2148 Oct 25 10:08	21°♋30'28	
minimum elong	2143 Jul 24 14:10	1°♌28'06	1°04'34	retrograde	2148 Oct 26 17:17	21°♋31'12	
max. Earth dist.	2143 Aug 05 06:24	8°♌59'50	2.65184 AU	min. Earth dist.	2148 Nov 26 10:56	15°♋01'26	0.52735 AU
	2143 Sep 07 03:19	0°♍		opposition	2148 Dec 03 22:46	12°♋11'04	1°55'52
morning rise	2143 Sep 09 05:40	1°♍20'00		greatest brilliancy	2148 Dec 03 02:51	12°♋30'01	-2.0m
	2143 Oct 24 14:20	0°♎		direct	2149 Jan 08 00:51	4°♋26'34	
	2143 Dec 11 11:41	0°♏			2149 Mar 27 18:21	0°☾	
	2144 Jan 29 06:49	0°♌			2149 May 21 18:14	0°♌	
	2144 Mar 20 23:46	0°☾			2149 Jul 11 07:38	0°♍	
desc. node	2144 Mar 21 20:58	0°☾28'53			2149 Aug 28 09:28	0°♎	
	2144 May 31 14:39	0°≈		evening set	2149 Sep 27 08:19	19°♎27'48	
retrograde	2144 Jun 17 20:44	1°≈44'54			2149 Oct 13 03:39	0°♏	
	2144 Jul 04 15:41	30°♏☾		max. Earth dist.	2149 Oct 16 01:24	1°♏57'29	2.56452 AU
opposition	2144 Jul 18 15:03	26°☾28'58	-5°-59'-59	desc. node	2149 Nov 11 17:16	20°♏14'10	
greatest brilliancy	2144 Jul 20 03:05	26°☾03'27	-2.7m				
min. Earth dist.	2144 Jul 24 04:43	24°☾54'33	0.39537 AU	conjunction	2149 Nov 14 02:43	21°♏54'17	0°-1'-26
direct	2144 Aug 20 01:53	20°☾31'19		minimum elong	2149 Nov 14 02:37	21°♏54'06	0°01'26
	2144 Sep 28 10:17	0°≈		behind sun begin	2149 Nov 13 06:04	21°♏18'17	
	2144 Nov 20 11:17	0°☿		behind sun end	2149 Nov 14 23:09	22°♏29'57	
	2145 Jan 03 22:52	0°☿			2149 Nov 25 15:07	0°♌	
asc. node	2145 Jan 20 10:44	11°☿23'00		morning rise	2150 Jan 03 19:35	28°♌20'41	
	2145 Feb 16 11:05	0°♊			2150 Jan 06 01:19	0°☾	
	2145 Apr 01 16:46	0°♋			2150 Feb 14 21:25	0°≈	
	2145 May 17 04:24	0°☾			2150 Mar 25 18:29	0°☿	
	2145 Jul 02 18:39	0°♌			2150 May 03 11:47	0°☿	
evening set	2145 Jul 15 03:08	7°♌52'28			2150 Jun 12 00:55	0°♊	
	2145 Aug 18 22:24	0°♍			2150 Jul 23 16:46	0°♋	
max. Earth dist.	2145 Aug 27 12:03	5°♍26'54	2.67634 AU		2150 Sep 07 21:00	0°☾	
				asc. node	2150 Sep 12 09:12	2°☾40'10	

	2150 Nov 10 20:18	0°♈			2155 Nov 06 18:09	0°♈		
retrograde	2150 Dec 05 04:32	3°♈34'31			2155 Dec 15 23:53	0°♈		
	2150 Dec 27 21:39	30°♈			2156 Jan 23 04:15	0°♈		
min. Earth dist.	2151 Jan 10 03:20	25°♈13'16	0.63256 AU		2156 Mar 01 10:26	0°♈		
greatest brilliancy	2151 Jan 13 07:22	23°♈57'14	-1.4m	evening set	2156 Mar 17 13:59	12°♈27'51		
opposition	2151 Jan 14 03:39	23°♈36'56	4°11'53		2156 Apr 09 16:50	0°♈		
direct	2151 Feb 21 17:01	14°♈32'35		asc. node	2156 May 04 05:45	18°♈08'42		
	2151 Apr 21 14:44	0°♈						
	2151 Jun 19 11:07	0°♈		conjunction	2156 May 19 21:05	29°♈26'31	0°10'00	
	2151 Aug 08 22:32	0°♈		minimum elong	2156 May 19 20:25	29°♈25'19	0°09'59	
	2151 Sep 24 09:29	0°♈		behind sun begin	2156 May 19 00:38	28°♈49'55		
desc. node	2151 Sep 29 16:12	3°♈32'48		behind sun end	2156 May 20 16:12	0°♈00'40		
	2151 Nov 06 19:12	0°♈			2156 May 20 15:49	0°♈		
evening set	2151 Nov 10 00:41	2°♈18'26		max. Earth dist.	2156 Jun 26 12:06	25°♈46'39	2.52868 AU	
max. Earth dist.	2151 Nov 25 06:04	13°♈19'16	2.44165 AU		2156 Jul 02 16:39	0°♈		
	2151 Dec 17 18:23	0°♈		morning rise	2156 Jul 15 14:46	8°♈43'22		
					2156 Aug 16 21:30	0°♈		
conjunction	2152 Jan 04 02:26	13°♈07'37	0°-52'-9		2156 Oct 03 06:45	0°♈		
minimum elong	2152 Jan 04 00:20	13°♈03'36	0°52'08		2156 Nov 22 10:43	0°♈		
	2152 Jan 25 23:55	0°♈			2157 Jan 18 07:00	0°♈		
	2152 Mar 04 06:54	0°♈		retrograde	2157 Mar 24 12:57	18°♈21'31		
morning rise	2152 Mar 08 01:22	2°♈58'06		opposition	2157 Apr 30 10:00	10°♈22'20	0°55'07	
	2152 Apr 11 12:11	0°♈		greatest brilliancy	2157 Apr 30 19:35	10°♈13'25	-1.7m	
	2152 May 20 13:12	0°♈		min. Earth dist.	2157 May 07 15:29	7°♈41'13	0.56936 AU	
	2152 Jun 30 07:09	0°♈		desc. node	2157 May 21 13:04	3°♈16'06		
asc. node	2152 Jul 30 07:06	20°♈57'58		direct	2157 Jun 09 17:52	0°♈47'28		
	2152 Aug 12 17:32	0°♈			2157 Aug 28 11:02	0°♈		
	2152 Sep 29 13:25	0°♈			2157 Oct 12 23:59	0°♈		
	2152 Nov 29 00:07	0°♈			2157 Nov 22 15:59	0°♈		
retrograde	2153 Jan 07 21:58	8°♈17'46			2157 Dec 31 15:56	0°♈		
	2153 Feb 13 11:38	30°♈			2158 Feb 08 14:30	0°♈		
opposition	2153 Feb 17 01:37	28°♈34'31	4°30'16		2158 Mar 20 13:23	0°♈		
greatest brilliancy	2153 Feb 16 23:48	28°♈36'20	-1.2m	asc. node	2158 Mar 22 03:53	1°♈10'51		
min. Earth dist.	2153 Feb 16 22:18	28°♈37'50	0.67691 AU		2158 May 01 04:39	0°♈		
direct	2153 Mar 29 18:16	18°♈47'27		evening set	2158 May 16 09:46	10°♈37'27		
	2153 May 17 11:17	0°♈			2158 Jun 13 18:51	0°♈		
	2153 Jul 16 13:28	0°♈						
desc. node	2153 Aug 16 14:56	18°♈40'41		conjunction	2158 Jul 08 11:32	16°♈26'54	0°56'03	
	2153 Sep 03 07:45	0°♈		minimum elong	2158 Jul 08 10:06	16°♈24'33	0°56'03	
	2153 Oct 17 08:08	0°♈		max. Earth dist.	2158 Jul 26 10:38	28°♈12'36	2.62749 AU	
	2153 Nov 27 07:07	0°♈			2158 Jul 29 04:43	0°♈		
evening set	2154 Jan 05 23:36	0°♈31'46		morning rise	2158 Aug 25 22:11	17°♈51'18		
	2154 Jan 05 07:21	0°♈			2158 Sep 14 00:31	0°♈		
	2154 Feb 12 08:54	0°♈			2158 Oct 31 21:05	0°♈		
					2158 Dec 19 21:58	0°♈		
conjunction	2154 Mar 13 23:31	23°♈21'37	0°-54'-24		2159 Feb 09 16:03	0°♈		
minimum elong	2154 Mar 14 02:34	23°♈27'35	0°54'24	desc. node	2159 Apr 08 11:50	27°♈46'30		
	2154 Mar 22 10:59	0°♈			2159 Apr 14 18:08	0°♈		
	2154 Apr 30 10:57	0°♈		retrograde	2159 May 20 05:49	6°♈37'39		
max. Earth dist.	2154 May 01 22:21	1°♈06'48	2.39468 AU	opposition	2159 Jun 22 00:28	0°♈30'58	-3°-52'-53	
morning rise	2154 May 22 09:21	16°♈22'04			2159 Jun 23 15:24	30°♈		
	2154 Jun 10 02:40	0°♈		greatest brilliancy	2159 Jun 23 13:12	0°♈01'46	-2.4m	
asc. node	2154 Jun 17 06:51	5°♈08'22		min. Earth dist.	2159 Jun 30 01:09	27°♈58'59	0.43992 AU	
	2154 Jul 23 00:08	0°♈		direct	2159 Jul 27 13:31	23°♈08'04		
	2154 Sep 06 15:52	0°♈			2159 Aug 29 13:52	0°♈		
	2154 Oct 26 05:22	0°♈			2159 Oct 23 08:12	0°♈		
	2154 Dec 24 20:59	0°♈			2159 Dec 05 13:49	0°♈		
retrograde	2155 Feb 12 05:10	11°♈35'50			2160 Jan 15 23:36	0°♈		
opposition	2155 Mar 23 09:49	2°♈30'55	3°28'17	asc. node	2160 Feb 07 03:26	15°♈59'38		
greatest brilliancy	2155 Mar 24 00:22	2°♈16'42	-1.3m		2160 Feb 26 18:45	0°♈		
min. Earth dist.	2155 Mar 27 03:22	1°♈03'23	0.65516 AU		2160 Apr 09 21:29	0°♈		
	2155 Mar 29 21:00	30°♈			2160 May 24 14:49	0°♈		
direct	2155 May 03 20:55	22°♈28'31		evening set	2160 Jun 29 17:19	23°♈32'37		
	2155 Jun 10 20:14	0°♈			2160 Jul 09 17:44	0°♈		
desc. node	2155 Jul 04 14:06	9°♈59'56						
	2155 Aug 10 12:43	0°♈		conjunction	2160 Aug 16 05:16	23°♈58'06	1°08'48	
	2155 Sep 26 01:08	0°♈		minimum elong	2160 Aug 16 05:21	23°♈58'14	1°08'48	

max. Earth dist.	2160 Aug 18 17:47	25°♂34'25	2.67322 AU	retrograde	2165 Nov 20 18:52	18°♂44'18	
	2160 Aug 25 16:40	0°♍		min. Earth dist.	2165 Dec 24 19:55	11°♂02'06	0.59792 AU
morning rise	2160 Sep 30 01:50	22°♍31'20		greatest brilliancy	2165 Dec 29 07:00	9°♂16'07	-1.6m
	2160 Oct 11 19:14	0°♊		opposition	2165 Dec 30 07:32	8°♂51'47	3°37'29
	2160 Nov 27 14:05	0°♌		direct	2166 Feb 05 16:04	0°♂13'00	
	2161 Jan 12 22:40	0°♈			2166 May 05 02:03	0°♊	
desc. node	2161 Feb 23 11:16	26°♈58'09			2166 Jun 28 03:50	0°♍	
	2161 Feb 28 03:32	0°♄			2166 Aug 16 10:05	0°♊	
	2161 Apr 16 01:25	0°♌			2166 Oct 01 12:25	0°♌	
	2161 Jun 06 02:27	0°♋		desc. node	2166 Oct 16 07:41	10°♌02'14	
retrograde	2161 Aug 07 02:44	19°♋47'10		evening set	2166 Oct 22 21:01	14°♌32'54	
min. Earth dist.	2161 Sep 04 06:42	15°♋10'51	0.37458 AU	max. Earth dist.	2166 Nov 06 12:55	24°♌46'53	2.49284 AU
opposition	2161 Sep 06 18:11	14°♋30'51	-6°-14'-54		2166 Nov 13 21:49	0°♈	
greatest brilliancy	2161 Sep 06 06:22	14°♋38'48	-2.9m				
direct	2161 Oct 06 04:43	9°♋35'36		conjunction	2166 Dec 13 07:19	21°♈18'07	0°-33'-46
	2161 Dec 08 20:42	0°♐		minimum elong	2166 Dec 13 05:45	21°♈15'12	0°33'47
asc. node	2161 Dec 25 03:00	8°♐56'35			2166 Dec 25 00:31	0°♄	
	2162 Jan 29 05:47	0°♉			2167 Feb 02 10:50	0°♌	
	2162 Mar 17 20:35	0°♊		morning rise	2167 Feb 09 02:30	5°♌09'01	
	2162 May 04 04:19	0°♈			2167 Mar 12 22:24	0°♋	
	2162 Jun 20 19:38	0°♊			2167 Apr 20 07:06	0°♐	
evening set	2162 Aug 07 04:55	29°♊49'28			2167 May 29 10:47	0°♉	
	2162 Aug 07 11:35	0°♍			2167 Jul 09 09:10	0°♊	
max. Earth dist.	2162 Sep 10 19:03	21°♍48'32	2.66456 AU	asc. node	2167 Aug 17 00:07	26°♊29'17	
					2167 Aug 22 09:04	0°♈	
conjunction	2162 Sep 21 16:27	28°♍47'58	0°54'26		2167 Oct 11 10:19	0°♊	
minimum elong	2162 Sep 21 17:32	28°♍49'41	0°54'25	retrograde	2167 Dec 26 14:48	25°♊24'28	
	2162 Sep 23 13:13	0°♊		min. Earth dist.	2168 Feb 03 03:45	16°♊12'13	0.66742 AU
morning rise	2162 Nov 05 05:21	27°♊50'56		opposition	2168 Feb 04 19:48	15°♊32'03	4°33'28
	2162 Nov 08 11:15	0°♌		greatest brilliancy	2168 Feb 04 10:12	15°♊41'41	-1.3m
	2162 Dec 22 23:04	0°♈		direct	2168 Mar 15 19:54	5°♊58'21	
desc. node	2163 Jan 11 10:14	13°♈26'36			2168 Jun 01 05:33	0°♍	
	2163 Feb 04 00:38	0°♄			2168 Jul 25 13:35	0°♊	
	2163 Mar 17 21:09	0°♌		desc. node	2168 Sep 02 07:20	24°♊12'45	
	2163 Apr 27 23:47	0°♋			2168 Sep 11 03:12	0°♌	
	2163 Jun 08 09:26	0°♐			2168 Oct 24 19:42	0°♈	
	2163 Jul 22 16:45	0°♉			2168 Dec 04 17:39	0°♄	
	2163 Sep 26 18:25	0°♊		evening set	2168 Dec 12 01:50	5°♄33'06	
retrograde	2163 Oct 09 08:23	1°♊07'04			2169 Jan 12 19:00	0°♌	
	2163 Oct 21 15:26	30°♉♂		max. Earth dist.	2169 Jan 26 07:34	10°♌35'50	2.37295 AU
min. Earth dist.	2163 Nov 06 21:39	25°♉29'18	0.47535 AU				
asc. node	2163 Nov 12 01:42	23°♉38'58		conjunction	2169 Feb 12 19:31	24°♌23'40	-1°-4'-38
opposition	2163 Nov 15 03:25	22°♉32'37	0°10'11	minimum elong	2169 Feb 12 20:00	24°♌24'37	1°04'39
greatest brilliancy	2164 Feb 20 13:22	4°♊29'43	-3.2m		2169 Feb 19 21:46	0°♋	
direct	2163 Dec 18 10:59	15°♉34'50			2169 Mar 30 00:03	0°♐	
	2164 Feb 10 18:36	0°♊		morning rise	2169 Apr 24 15:30	19°♐51'31	
	2164 Apr 08 20:27	0°♈			2169 May 07 23:09	0°♉	
	2164 May 30 08:04	0°♊			2169 Jun 17 14:02	0°♊	
	2164 Jul 18 16:38	0°♍		asc. node	2169 Jul 03 21:58	11°♊37'25	
	2164 Sep 04 07:54	0°♊			2169 Jul 30 13:14	0°♈	
evening set	2164 Sep 12 06:59	5°♊07'53			2169 Sep 14 16:36	0°♊	
max. Earth dist.	2164 Oct 04 23:41	19°♊58'20	2.60245 AU		2169 Nov 05 05:31	0°♍	
	2164 Oct 20 00:54	0°♌		retrograde	2170 Jan 29 03:17	28°♍43'07	
conjunction	2164 Oct 28 17:08	5°♌51'04	0°17'40	opposition	2170 Mar 09 20:12	19°♍20'33	4°01'27
minimum elong	2164 Oct 28 17:46	5°♌52'09	0°17'39	greatest brilliancy	2170 Mar 10 05:26	19°♍11'25	-1.2m
desc. node	2164 Nov 28 08:34	26°♌57'05		min. Earth dist.	2170 Mar 12 01:21	18°♍28'01	0.67170 AU
	2164 Dec 02 16:53	0°♈		direct	2170 Apr 20 04:14	9°♍20'38	
morning rise	2164 Dec 15 13:53	9°♈06'54		desc. node	2170 Jun 28 06:40	0°♊	
	2165 Jan 13 11:05	0°♄			2170 Jul 21 05:55	12°♊07'39	
	2165 Feb 22 16:31	0°♌			2170 Aug 20 07:27	0°♌	
	2165 Apr 02 22:49	0°♋			2170 Oct 04 11:22	0°♈	
	2165 May 12 00:45	0°♐			2170 Nov 14 18:33	0°♄	
	2165 Jun 21 00:32	0°♉			2170 Dec 23 20:38	0°♌	
	2165 Aug 02 15:00	0°♊		greatest brilliancy	2171 Jan 30 22:40	0°♋	
	2165 Sep 21 07:04	0°♈		evening set	2171 Feb 06 02:25	4°♋52'00	1.2m
asc. node	2165 Sep 29 01:04	3°♈53'25			2171 Feb 18 13:59	14°♋42'56	
					2171 Mar 10 01:55	0°♐	

	2171 Apr 18 04:19	0°♄		desc. node	2176 Mar 12 02:31	0°♁07'06	
					2176 May 05 00:53	0°♁	
conjunction	2171 Apr 26 17:40	6°♄24'45	0°-16'-18	retrograde	2176 Jul 05 19:43	18°♁22'33	
minimum elong	2171 Apr 26 19:01	6°♄27'14	0°16'17	opposition	2176 Aug 05 01:03	13°♁23'02	-6°-43'-41
asc. node	2171 May 21 21:51	24°♄55'13		greatest brilliancy	2176 Aug 05 23:49	13°♁07'38	-2.8m
	2171 May 28 22:56	0°♂		min. Earth dist.	2176 Aug 08 01:47	12°♁33'55	0.37961 AU
max. Earth dist.	2171 Jun 11 22:30	9°♂57'12	2.47756 AU	direct	2176 Sep 04 21:53	8°♁04'02	
morning rise	2171 Jun 27 11:24	20°♂48'42			2176 Nov 08 10:40	0°♂	
	2171 Jul 10 20:32	0°♄			2176 Dec 26 22:47	0°♂	
	2171 Aug 25 02:38	0°♂		asc. node	2177 Jan 10 18:31	9°♂47'26	
	2171 Oct 12 00:22	0°♄			2177 Feb 10 00:33	0°♄	
	2171 Dec 03 02:44	0°♂			2177 Mar 27 02:45	0°♂	
	2172 Feb 10 23:15	0°♂			2177 May 12 02:29	0°♄	
retrograde	2172 Mar 07 07:38	3°♂28'15			2177 Jun 28 00:04	0°♂	
	2172 Mar 30 18:48	30°♂♂		evening set	2177 Jul 23 15:32	16°♂16'01	
opposition	2172 Apr 14 07:00	24°♂59'07	2°07'37		2177 Aug 14 07:25	0°♄	
greatest brilliancy	2172 Apr 14 23:13	24°♂43'39	-1.5m	max. Earth dist.	2177 Sep 01 16:42	11°♂41'15	2.67437 AU
min. Earth dist.	2172 Apr 20 05:51	22°♂42'53	0.61009 AU				
direct	2172 May 25 08:25	15°♂05'57		conjunction	2177 Sep 07 13:31	15°♂25'34	1°02'53
desc. node	2172 Jun 07 04:01	16°♂07'03		minimum elong	2177 Sep 07 14:21	15°♂26'53	1°02'52
	2172 Jul 18 22:03	0°♂			2177 Sep 30 07:51	0°♂	
	2172 Sep 09 10:29	0°♂		morning rise	2177 Oct 21 20:43	13°♂54'35	
	2172 Oct 22 17:05	0°♂			2177 Nov 15 11:55	0°♂	
	2172 Dec 01 13:54	0°♁			2177 Dec 30 13:06	0°♂	
	2173 Jan 09 03:12	0°♂		desc. node	2178 Jan 28 01:36	19°♂23'25	
	2173 Feb 16 17:03	0°♂			2178 Feb 12 11:50	0°♂	
	2173 Mar 28 07:21	0°♄			2178 Mar 27 13:22	0°♁	
asc. node	2173 Apr 07 21:38	7°♄49'48			2178 May 09 08:08	0°♂	
evening set	2173 Apr 25 04:56	20°♄25'26			2178 Jun 22 15:23	0°♂	
	2173 May 08 14:20	0°♂			2178 Aug 16 18:28	0°♄	
				retrograde	2178 Sep 17 23:18	6°♄46'09	
conjunction	2173 Jun 20 19:29	29°♂56'46	0°42'21	min. Earth dist.	2178 Oct 14 20:43	1°♄56'00	0.42426 AU
minimum elong	2173 Jun 20 17:47	29°♂53'53	0°42'21		2178 Oct 20 19:41	30°♂♂	
	2173 Jun 20 21:23	0°♄		opposition	2178 Oct 22 15:08	29°♂24'30	-2°-15'-12
max. Earth dist.	2173 Jul 15 20:58	16°♄42'47	2.59453 AU	greatest brilliancy	2178 Oct 21 18:12	29°♂41'34	-2.6m
	2173 Aug 05 03:21	0°♂		direct	2178 Nov 22 22:56	23°♂22'20	
morning rise	2173 Aug 10 19:47	3°♂41'23		asc. node	2178 Nov 28 18:30	23°♂35'32	
	2173 Sep 21 01:21	0°♄			2178 Dec 27 04:21	0°♄	
	2173 Nov 08 12:21	0°♂			2179 Feb 27 10:35	0°♂	
	2173 Dec 29 07:31	0°♂			2179 Apr 19 19:59	0°♄	
	2174 Feb 25 04:53	0°♂			2179 Jun 08 07:25	0°♂	
retrograde	2174 Apr 25 10:44	15°♂48'34			2179 Jul 26 20:08	0°♄	
desc. node	2174 Apr 25 03:17	15°♂48'32		evening set	2179 Aug 29 17:24	21°♂22'40	
opposition	2174 May 30 00:17	8°♂51'22	-1°-43'-42		2179 Sep 12 04:23	0°♂	
greatest brilliancy	2174 May 30 19:41	8°♂34'35	-2.1m	max. Earth dist.	2179 Sep 25 18:24	8°♂47'19	2.63300 AU
min. Earth dist.	2174 Jun 07 10:22	5°♂57'19	0.49210 AU				
direct	2174 Jul 07 00:35	0°♂18'47		conjunction	2179 Oct 14 09:32	21°♂00'16	0°34'18
	2174 Sep 22 16:45	0°♂		minimum elong	2179 Oct 14 10:33	21°♂01'57	0°34'17
	2174 Nov 05 22:30	0°♁			2179 Oct 27 22:16	0°♂	
	2174 Dec 16 12:55	0°♂		morning rise	2179 Nov 29 09:43	22°♂03'38	
	2175 Jan 25 13:11	0°♂			2179 Dec 10 20:26	0°♂	
asc. node	2175 Feb 23 19:46	21°♂36'46		desc. node	2179 Dec 16 00:58	3°♂37'38	
	2175 Mar 07 08:50	0°♄			2180 Jan 22 00:34	0°♂	
	2175 Apr 18 17:45	0°♂			2180 Mar 02 17:43	0°♁	
	2175 Jun 01 21:43	0°♄			2180 Apr 11 12:18	0°♂	
evening set	2175 Jun 14 05:30	8°♄10'11			2180 May 21 03:24	0°♂	
	2175 Jul 17 16:02	0°♂			2180 Jun 30 22:25	0°♄	
					2180 Aug 14 12:45	0°♂	
conjunction	2175 Aug 02 10:02	10°♂08'48	1°07'23	asc. node	2180 Oct 15 16:49	29°♂32'39	
minimum elong	2175 Aug 02 09:32	10°♂07'59	1°07'23		2180 Oct 17 13:11	0°♄	
max. Earth dist.	2175 Aug 10 16:56	15°♂27'31	2.66172 AU	retrograde	2180 Nov 05 06:39	2°♄18'50	
	2175 Sep 02 11:51	0°♄			2180 Nov 23 01:59	30°♂♂	
morning rise	2175 Sep 17 06:18	9°♄23'10		min. Earth dist.	2180 Dec 07 05:57	25°♂21'12	0.55470 AU
	2175 Oct 19 18:47	0°♂		greatest brilliancy	2180 Dec 13 01:49	23°♂05'51	-1.8m
	2175 Dec 06 04:52	0°♂		opposition	2180 Dec 14 01:48	22°♂42'33	2°41'10
	2176 Jan 22 22:03	0°♂		direct	2181 Jan 19 00:36	14°♂36'11	
	2176 Mar 11 21:45	0°♂			2181 Mar 17 19:56	0°♄	

	2181 May 15 14:28	0°♈		conjunction	2186 Mar 30 09:04	9°♊54'38	0°-42'-31
	2181 Jul 06 04:04	0°♍		minimum elong	2186 Mar 30 12:15	10°♊00'48	0°42'30
	2181 Aug 23 15:05	0°♊			2186 Apr 25 15:20	0°♊	
evening set	2181 Oct 06 06:14	28°♊28'57		max. Earth dist.	2186 May 20 20:47	18°♊47'05	2.42341 AU
	2181 Oct 08 12:30	0°♌		morning rise	2186 Jun 05 09:51	0°♌04'49	
max. Earth dist.	2181 Oct 23 05:44	9°♌58'44	2.54086 AU		2186 Jun 05 07:10	0°♌	
desc. node	2181 Nov 01 23:38	16°♌41'12		asc. node	2186 Jun 07 14:25	1°♌39'16	
	2181 Nov 20 23:43	0°♍			2186 Jul 18 03:17	0°♍	
					2186 Sep 01 13:24	0°♈	
conjunction	2181 Nov 24 01:36	2°♍11'07	0°-13'-8		2186 Oct 20 07:19	0°♍	
minimum elong	2181 Nov 24 01:01	2°♍10'05	0°13'08		2186 Dec 14 21:54	0°♊	
behind sun begin	2181 Nov 23 12:17	1°♍47'28		retrograde	2187 Feb 20 16:14	19°♊39'26	
behind sun end	2181 Nov 24 13:44	2°♍32'42		opposition	2187 Mar 31 11:38	10°♊45'56	3°02'42
	2182 Jan 01 07:42	0°♎		greatest brilliancy	2187 Apr 01 03:50	10°♊30'12	-1.4m
morning rise	2182 Jan 15 20:55	10°♎52'44		min. Earth dist.	2187 Apr 05 00:18	9°♊00'24	0.64185 AU
	2182 Feb 10 00:18	0°♏		direct	2187 May 11 21:06	0°♊44'39	
	2182 Mar 20 17:40	0°♐		desc. node	2187 Jun 24 19:45	10°♊38'09	
	2182 Apr 28 07:01	0°♑			2187 Aug 03 08:35	0°♌	
	2182 Jun 06 15:04	0°♒			2187 Sep 20 07:47	0°♍	
	2182 Jul 17 21:35	0°♈			2187 Nov 01 11:55	0°♎	
	2182 Aug 31 22:15	0°♏			2187 Dec 10 22:07	0°♏	
asc. node	2182 Sep 02 15:31	1°♏04'12			2188 Jan 18 04:55	0°♐	
	2182 Oct 26 01:14	0°♈			2188 Feb 25 12:53	0°♑	
retrograde	2182 Dec 13 03:34	12°♈04'15		evening set	2188 Apr 01 07:39	27°♑20'12	
min. Earth dist.	2183 Jan 19 01:41	3°♈23'28	0.64782 AU		2188 Apr 04 20:54	0°♒	
opposition	2183 Jan 22 06:09	2°♈06'46	4°24'12	asc. node	2188 Apr 24 13:09	14°♒33'51	
greatest brilliancy	2183 Jan 21 13:16	2°♈23'44	-1.4m		2188 May 15 21:34	0°♈	
	2183 Jan 27 14:29	30°♒♏					
direct	2183 Mar 02 09:00	22°♏50'38		conjunction	2188 Jun 01 03:42	11°♈29'47	0°23'17
	2183 Apr 09 02:40	0°♈		minimum elong	2188 Jun 01 02:22	11°♈27'26	0°23'16
	2183 Jun 13 03:40	0°♍			2188 Jun 27 23:25	0°♏	
	2183 Aug 03 17:41	0°♊		max. Earth dist.	2188 Jul 04 03:28	4°♏10'43	2.55415 AU
desc. node	2183 Sep 19 22:20	0°♌14'31		morning rise	2188 Jul 25 13:50	18°♏29'29	
	2183 Sep 19 13:37	0°♌			2188 Aug 12 03:27	0°♈	
	2183 Nov 02 02:03	0°♍			2188 Sep 28 06:46	0°♍	
evening set	2183 Nov 21 05:30	13°♍49'12			2188 Nov 16 15:41	0°♊	
max. Earth dist.	2183 Dec 09 19:03	27°♍33'19	2.41373 AU		2189 Jan 09 10:23	0°♌	
	2183 Dec 13 01:18	0°♎		retrograde	2189 Apr 04 08:35	28°♌01'40	
				opposition	2189 May 10 11:15	20°♌22'12	0°03'32
conjunction	2184 Jan 17 19:07	27°♎19'46	0°-59'-53	greatest brilliancy	2201 Mar 04 11:55	12°♐57'10	45.4m
minimum elong	2184 Jan 17 17:21	27°♎16'20	0°59'54	desc. node	2189 May 11 18:08	19°♌54'01	
	2184 Jan 21 05:35	0°♏		min. Earth dist.	2189 May 18 05:54	17°♌32'20	0.54335 AU
	2184 Feb 28 11:09	0°♐		direct	2189 Jun 19 03:19	11°♌04'06	
morning rise	2184 Mar 25 01:27	20°♐09'30			2189 Aug 18 18:15	0°♍	
	2184 Apr 06 15:05	0°♑			2189 Oct 06 04:14	0°♎	
	2184 May 15 14:32	0°♒			2189 Nov 16 16:31	0°♏	
	2184 Jun 25 05:59	0°♈			2189 Dec 26 02:36	0°♐	
asc. node	2184 Jul 20 15:24	17°♈54'17			2190 Feb 03 08:06	0°♑	
	2184 Aug 07 09:43	0°♏		asc. node	2190 Mar 12 12:27	27°♑47'57	
	2184 Sep 23 08:53	0°♈			2190 Mar 15 12:23	0°♒	
	2184 Nov 17 18:43	0°♍			2190 Apr 26 08:12	0°♈	
retrograde	2185 Jan 15 14:25	16°♍03'28		evening set	2190 May 27 08:30	21°♈24'22	
opposition	2185 Feb 24 15:00	6°♍26'33	4°22'58		2190 Jun 09 01:47	0°♏	
greatest brilliancy	2185 Feb 24 17:19	6°♍24'14	-1.2m				
min. Earth dist.	2185 Feb 25 07:38	6°♍09'59	0.67787 AU	conjunction	2190 Jul 17 20:14	25°♏37'47	1°01'34
	2185 Mar 14 10:19	30°♒♈		minimum elong	2190 Jul 17 19:06	25°♏35'56	1°01'35
direct	2185 Apr 06 14:11	26°♈33'45			2190 Jul 24 13:33	0°♈	
	2185 May 01 19:17	0°♍		max. Earth dist.	2190 Aug 01 04:51	4°♈56'48	2.64196 AU
	2185 Jul 10 00:57	0°♊		morning rise	2190 Sep 03 04:35	26°♈05'18	
desc. node	2185 Aug 06 21:14	16°♊09'58			2190 Sep 09 08:18	0°♍	
	2185 Aug 28 23:42	0°♌			2190 Oct 26 22:46	0°♊	
	2185 Oct 12 08:56	0°♍			2190 Dec 14 06:39	0°♌	
	2185 Nov 22 10:51	0°♎			2191 Feb 02 02:55	0°♍	
	2185 Dec 31 11:38	0°♏		desc. node	2191 Mar 29 18:24	0°♎21'23	
evening set	2186 Jan 21 06:01	16°♏19'22			2191 Mar 29 00:53	0°♎	
	2186 Feb 07 13:10	0°♐		retrograde	2191 Jun 05 09:35	20°♎39'45	
	2186 Mar 17 15:15	0°♑		opposition	2191 Jul 06 23:49	15°♎02'54	-5°-8'-41

greatest brilliancy	2191 Jul 08 15:52	14°♄33'03	-2.6m	evening set	2196 Sep 20 19:29	13°♎41'37	
min. Earth dist.	2191 Jul 13 23:59	12°♄58'09	0.41332 AU	max. Earth dist.	2196 Oct 11 06:45	27°♎13'26	2.58243 AU
direct	2191 Aug 09 21:10	8°♄27'22			2196 Oct 15 10:13	0°♎	
	2191 Oct 11 18:13	0°♌					
	2191 Nov 27 13:43	0°♋		conjunction	2196 Nov 06 21:20	15°♎16'18	0°06'55
	2192 Jan 09 09:05	0°♐		minimum elong	2196 Nov 06 21:36	15°♎16'47	0°06'55
asc. node	2192 Jan 28 10:40	13°♐28'52		behind sun begin	2196 Nov 06 03:04	14°♎44'55	
	2192 Feb 20 23:33	0°♉		behind sun end	2196 Nov 07 16:08	15°♎48'41	
	2192 Apr 04 15:09	0°♈		desc. node	2196 Nov 18 14:51	23°♎24'03	
	2192 May 19 17:02	0°♊			2196 Nov 28 00:40	0°♏	
	2192 Jul 05 01:20	0°♈		morning rise	2196 Dec 26 04:09	20°♏08'58	
evening set	2192 Jul 08 15:15	2°♏17'36			2197 Jan 08 15:21	0°♏	
	2192 Aug 21 02:24	0°♑			2197 Feb 17 16:02	0°♌	
					2197 Mar 28 17:18	0°♋	
conjunction	2192 Aug 24 10:14	2°♑06'55	1°07'43		2197 May 06 13:58	0°♐	
minimum elong	2192 Aug 24 10:38	2°♑07'33	1°07'43		2197 Jun 15 06:13	0°♉	
max. Earth dist.	2192 Aug 23 22:37	1°♑48'27	2.67601 AU		2197 Jul 27 04:30	0°♈	
morning rise	2192 Oct 07 22:39	0°♎30'12			2197 Sep 12 07:45	0°♊	
	2192 Oct 07 03:47	0°♎		asc. node	2197 Sep 19 08:55	3°♊58'18	
	2192 Nov 22 16:44	0°♎		retrograde	2197 Nov 29 03:35	27°♊50'36	
	2193 Jan 07 12:29	0°♏		min. Earth dist.	2198 Jan 03 06:19	19°♊46'09	0.61816 AU
desc. node	2193 Feb 13 17:49	24°♏40'07		opposition	2198 Jan 07 22:35	17°♊54'10	3°59'58
	2193 Feb 21 18:01	0°♄		greatest brilliancy	2198 Jan 06 23:52	18°♊16'51	-1.5m
	2193 Apr 07 19:36	0°♌		direct	2198 Feb 14 23:12	9°♊00'40	
	2193 May 24 03:07	0°♋			2198 Apr 26 21:54	0°♏	
	2193 Jul 18 17:31	0°♐			2198 Jun 22 10:47	0°♑	
retrograde	2193 Aug 23 14:11	7°♐57'40			2198 Aug 11 10:12	0°♎	
min. Earth dist.	2193 Sep 19 11:21	3°♐30'21	0.38522 AU		2198 Sep 26 18:54	0°♎	
opposition	2193 Sep 24 12:30	2°♐03'33	-5°00'-52	desc. node	2198 Oct 06 13:51	6°♎36'00	
greatest brilliancy	2193 Sep 23 12:34	2°♐20'47	-2.8m	evening set	2198 Nov 01 22:51	24°♎50'22	
	2193 Oct 02 00:01	30°♑			2198 Nov 09 05:48	0°♏	
direct	2193 Oct 24 08:20	26°♑53'24		max. Earth dist.	2198 Nov 16 10:37	5°♏08'47	2.46486 AU
	2193 Nov 15 16:33	0°♐			2198 Dec 20 07:43	0°♄	
asc. node	2193 Dec 15 09:29	11°♐11'04					
	2194 Jan 20 03:46	0°♉		conjunction	2198 Dec 25 05:54	3°♄41'42	0°-44'-47
	2194 Mar 11 07:13	0°♈		minimum elong	2198 Dec 25 03:55	3°♄37'57	0°44'47
	2194 Apr 28 16:35	0°♊			2199 Jan 28 15:56	0°♌	
	2194 Jun 15 20:56	0°♏		morning rise	2199 Feb 24 08:50	20°♌49'58	
	2194 Aug 02 19:17	0°♑			2199 Mar 08 01:02	0°♋	
evening set	2194 Aug 15 10:13	7°♑57'57		greatest brilliancy	2199 Apr 05 09:21	22°♋15'12	1.2m
max. Earth dist.	2194 Sep 16 03:51	28°♑11'53	2.65564 AU		2199 Apr 15 07:28	0°♐	
	2194 Sep 18 23:02	0°♎			2199 May 24 08:35	0°♉	
					2199 Jul 04 02:47	0°♈	
conjunction	2194 Sep 29 20:11	7°♎01'55	0°47'57	asc. node	2199 Aug 07 06:59	23°♈44'47	
minimum elong	2194 Sep 29 21:18	7°♎03'45	0°47'55		2199 Aug 16 16:07	0°♊	
	2194 Nov 03 19:36	0°♎			2199 Oct 04 03:13	0°♏	
morning rise	2194 Nov 13 17:18	6°♎37'00			2199 Dec 10 04:45	0°♑	
	2194 Dec 18 02:22	0°♏		retrograde	2200 Jan 03 06:44	3°♑19'16	
desc. node	2195 Jan 01 16:06	10°♏06'46			2200 Jan 25 14:45	30°♑	
	2195 Jan 29 19:55	0°♄		opposition	2200 Feb 12 11:10	23°♏31'22	4°33'05
	2195 Mar 12 05:32	0°♌		greatest brilliancy	2200 Feb 12 05:51	23°♏36'41	-1.2m
	2195 Apr 21 18:32	0°♋		min. Earth dist.	2200 Feb 11 15:17	23°♏51'16	0.67392 AU
	2195 Jun 01 08:01	0°♐		direct	2200 Mar 24 20:38	13°♏49'52	
	2195 Jul 13 18:01	0°♉			2200 May 24 10:56	0°♑	
	2195 Sep 01 23:19	0°♈			2200 Jul 20 17:34	0°♎	
retrograde	2195 Oct 20 03:02	13°♈33'03		desc. node	2200 Aug 24 12:32	21°♎16'35	
asc. node	2195 Nov 02 09:37	12°♈14'24			2200 Sep 07 00:40	0°♎	
min. Earth dist.	2195 Nov 18 20:36	7°♈26'05	0.50431 AU		2200 Oct 20 23:01	0°♏	
opposition	2195 Nov 26 18:12	4°♈30'18	1°15'39		2200 Nov 30 22:52	0°♄	
greatest brilliancy	2195 Nov 26 03:44	4°♈43'46	-2.1m	evening set	2200 Dec 26 17:42	19°♄40'57	
	2195 Dec 10 06:09	30°♑			2201 Jan 09 00:18	0°♌	
direct	2195 Dec 31 01:42	27°♑05'26			2201 Feb 16 02:35	0°♋	
	2196 Jan 22 07:16	0°♈					
	2196 Apr 01 10:27	0°♊		conjunction	2201 Mar 02 02:00	11°♋02'50	-1°00'-43
	2196 May 24 17:01	0°♏		minimum elong	2201 Mar 02 04:11	11°♋07'09	1°00'44
	2196 Jul 13 17:31	0°♑			2201 Mar 26 04:26	0°♐	
	2196 Aug 30 15:24	0°♎		max. Earth dist.	2201 Apr 05 01:01	7°♐41'03	2.37593 AU

	2201 May 04 03:01	0°♄		retrograde	2206 May 09 20:29	27°♂33'54	
morning rise	2201 May 11 17:01	5°♂42'57		opposition	2206 Jun 12 11:43	21°♂03'37	-2°-55'-7
	2201 Jun 13 16:57	0°♂		greatest brilliancy	2206 Jun 13 18:11	20°♂38'20	-2.3m
asc. node	2201 Jun 25 06:40	8°♂16'36		min. Earth dist.	2206 Jun 20 21:35	18°♂17'25	0.46306 AU
	2201 Jul 26 13:20	0°♄		direct	2206 Jul 19 05:46	13°♂06'30	
	2201 Sep 10 07:27	0°♂			2206 Sep 12 03:55	0°♄	
	2201 Oct 30 11:03	0°♄			2206 Oct 30 05:33	0°♄	
	2202 Jan 02 14:05	0°♄			2206 Dec 11 00:45	0°♄	
retrograde	2202 Feb 07 03:35	6°♄31'55			2207 Jan 20 16:45	0°♄	
	2202 Mar 11 13:41	30°♄		asc. node	2207 Feb 15 03:04	18°♄35'13	
opposition	2202 Mar 18 13:48	27°♄18'35	3°43'28		2207 Mar 02 23:12	0°♄	
greatest brilliancy	2202 Mar 19 02:10	27°♄06'25	-1.3m		2207 Apr 14 16:05	0°♂	
min. Earth dist.	2202 Mar 21 14:52	26°♄06'43	0.66377 AU		2207 May 29 01:59	0°♄	
direct	2202 Apr 28 23:36	17°♄16'39		evening set	2207 Jun 24 19:17	17°♄33'23	
	2202 Jun 19 11:41	0°♄			2207 Jul 14 00:05	0°♂	
desc. node	2202 Jul 12 11:33	10°♄55'42					
	2202 Aug 15 03:56	0°♄		conjunction	2207 Aug 11 23:32	18°♂35'24	1°08'42
	2202 Sep 30 02:40	0°♄		minimum elong	2207 Aug 11 23:23	18°♂35'10	1°08'43
	2202 Nov 10 16:30	0°♄		max. Earth dist.	2207 Aug 17 01:33	21°♂50'05	2.66922 AU
	2202 Dec 19 21:10	0°♄			2207 Aug 29 21:02	0°♄	
	2203 Jan 27 00:35	0°♄		morning rise	2207 Sep 26 04:50	17°♄22'34	
	2203 Mar 06 05:07	0°♄			2207 Oct 16 01:22	0°♄	
evening set	2203 Mar 07 14:00	1°♄03'59			2207 Dec 02 02:32	0°♄	
	2203 Apr 14 08:49	0°♄		desc. node	2208 Jan 18 00:05	0°♄	
					2208 Mar 03 08:54	28°♂49'38	
conjunction	2203 May 11 18:42	20°♂18'04	0°00'-57		2208 Mar 05 05:40	0°♄	
minimum elong	2203 May 11 18:49	20°♂18'15	0°00'58		2208 Apr 23 07:37	0°♄	
behind sun begin	2203 May 10 16:56	19°♂31'05			2208 Jun 22 15:17	0°♄	
behind sun end	2203 May 12 20:41	21°♂05'22		retrograde	2208 Jul 25 05:42	6°♄13'20	
asc. node	2203 May 13 05:56	21°♂22'12		opposition	2208 Aug 24 08:56	1°♄13'25	-6°-45'-53
	2203 May 25 04:37	0°♂		min. Earth dist.	2208 Aug 24 08:49	1°♄13'30	0.37279 AU
max. Earth dist.	2203 Jun 22 08:51	19°♂52'13	2.50651 AU	greatest brilliancy	2208 Aug 24 12:19	1°♄11'11	-2.9m
	2203 Jul 07 02:35	0°♄			2208 Aug 29 01:36	30°♄	
morning rise	2203 Jul 09 15:09	1°♄43'02		direct	2208 Sep 23 01:29	26°♄16'28	
	2203 Aug 21 06:21	0°♂			2208 Oct 17 10:05	0°♄	
	2203 Oct 07 18:56	0°♄			2208 Dec 18 06:19	0°♄	
	2203 Nov 27 14:14	0°♄		asc. node	2209 Jan 02 02:58	9°♄05'04	
	2204 Jan 26 14:44	0°♄			2209 Feb 04 00:06	0°♄	
retrograde	2204 Mar 17 21:30	12°♄14'48			2209 Mar 22 06:49	0°♂	
opposition	2204 Apr 24 06:39	4°♄01'17	1°27'55		2209 May 07 22:12	0°♄	
greatest brilliancy	2204 Apr 24 20:00	3°♄48'43	-1.6m		2209 Jun 24 04:34	0°♂	
min. Earth dist.	2204 Apr 30 22:36	1°♄30'37	0.58866 AU	evening set	2209 Aug 02 00:46	24°♂23'42	
	2204 May 05 02:42	30°♄			2209 Aug 10 16:19	0°♄	
desc. node	2204 May 29 10:40	24°♄28'51		max. Earth dist.	2209 Sep 07 23:12	17°♄58'25	2.67003 AU
direct	2204 Jun 03 23:10	24°♄16'33					
	2204 Jul 05 13:23	0°♄		conjunction	2209 Sep 16 15:36	23°♄31'27	0°58'22
	2204 Sep 03 07:57	0°♄		minimum elong	2209 Sep 16 16:36	23°♄33'03	0°58'22
	2204 Oct 17 18:42	0°♄			2209 Sep 26 17:44	0°♄	
	2204 Nov 27 01:50	0°♄		morning rise	2209 Oct 31 00:14	22°♄14'59	
	2205 Jan 04 20:30	0°♄			2209 Nov 11 18:56	0°♄	
	2205 Feb 12 14:25	0°♄			2209 Dec 26 13:05	0°♄	
	2205 Mar 24 08:16	0°♄		desc. node	2210 Jan 19 07:45	16°♄18'30	
asc. node	2205 Mar 30 03:48	4°♄17'38			2210 Feb 08 00:03	0°♄	
	2205 May 04 18:30	0°♂			2210 Mar 22 08:30	0°♄	
evening set	2205 May 08 13:49	2°♂41'08			2210 May 03 02:08	0°♄	
	2205 Jun 17 04:14	0°♄			2210 Jun 14 10:10	0°♄	
					2210 Jul 31 03:09	0°♄	
conjunction	2205 Jul 02 02:32	10°♄01'06	0°50'56	retrograde	2210 Oct 01 13:02	21°♄30'28	
minimum elong	2205 Jul 02 00:56	9°♄58'26	0°50'55	min. Earth dist.	2210 Oct 29 04:45	16°♄15'35	0.45180 AU
max. Earth dist.	2205 Jul 23 01:35	23°♄51'54	2.61384 AU	opposition	2210 Nov 06 10:44	13°♄25'22	0°-47'-24
	2205 Aug 01 11:12	0°♂		greatest brilliancy	2210 Nov 06 01:59	13°♄32'55	-2.4m
morning rise	2205 Aug 20 13:46	12°♄20'51		asc. node	2210 Nov 20 01:43	9°♄14'10	
	2205 Sep 17 06:53	0°♄		direct	2210 Dec 08 21:49	6°♄51'38	
	2205 Nov 04 08:36	0°♄			2211 Feb 19 01:42	0°♂	
	2205 Dec 24 00:47	0°♄			2211 Apr 14 12:40	0°♄	
	2206 Feb 15 17:14	0°♄			2211 Jun 04 00:57	0°♂	
desc. node	2206 Apr 16 09:34	24°♄29'38			2211 Jul 23 00:30	0°♄	

evening set	2211 Sep 08 00:37	29° \mathbb{M} 39'41			2216 Jun 21 05:44	0° \mathbb{I}	
	2211 Sep 08 13:15	0° $\underline{\mathbb{A}}$		asc. node	2216 Jul 11 22:04	14° \mathbb{I} 40'52	
max. Earth dist.	2211 Oct 02 15:17	15° $\underline{\mathbb{A}}$ 37'56	2.61714 AU		2216 Aug 03 05:01	0° $\underline{\mathbb{S}}$	
					2216 Sep 18 13:20	0° \mathcal{O}	
conjunction	2211 Oct 24 01:09	29° $\underline{\mathbb{A}}$ 49'15	0°24'58		2216 Nov 10 05:03	0° \mathbb{M}	
minimum elong	2211 Oct 24 01:59	29° $\underline{\mathbb{A}}$ 50'38	0°24'57	retrograde	2217 Jan 24 08:08	23° \mathbb{M} 47'09	
	2211 Oct 24 07:34	0° \mathbb{M}		opposition	2217 Mar 05 04:38	14° \mathbb{M} 17'43	4°11'39
desc. node	2211 Dec 07 06:12	0° \mathcal{X} 05'09		greatest brilliancy	2217 Mar 05 10:52	14° \mathbb{M} 11'31	-1.2m
	2211 Dec 07 03:15	0° \mathcal{X}		min. Earth dist.	2217 Mar 06 17:08	13° \mathbb{M} 41'28	0.67578 AU
morning rise	2211 Dec 09 23:11	1° \mathcal{X} 59'05		direct	2217 Apr 15 09:02	4° \mathbb{M} 20'33	
	2212 Jan 18 02:41	0° $\underline{\mathbb{Z}}$			2217 Jul 03 18:57	0° $\underline{\mathbb{A}}$	
	2212 Feb 27 13:47	0° \approx		desc. node	2217 Jul 29 03:25	14° $\underline{\mathbb{A}}$ 00'30	
	2212 Apr 07 01:23	0° \mathcal{H}			2217 Aug 24 10:08	0° \mathbb{M}	
	2212 May 16 08:20	0° \mathcal{Y}			2217 Oct 08 07:10	0° \mathcal{X}	
	2212 Jun 25 14:08	0° \mathcal{B}			2217 Nov 18 13:15	0° $\underline{\mathbb{Z}}$	
	2212 Aug 07 18:29	0° \mathbb{I}			2217 Dec 27 15:25	0° \approx	
	2212 Sep 29 06:31	0° $\underline{\mathbb{S}}$			2218 Feb 03 17:11	0° \mathcal{H}	
asc. node	2212 Oct 07 00:34	3° $\underline{\mathbb{S}}$ 21'55		evening set	2218 Feb 07 02:07	2° \mathcal{H} 40'03	
retrograde	2212 Nov 15 07:24	12° $\underline{\mathbb{S}}$ 21'59			2218 Mar 13 19:23	0° \mathcal{Y}	
min. Earth dist.	2212 Dec 18 10:40	4° $\underline{\mathbb{S}}$ 58'53	0.57949 AU				
greatest brilliancy	2212 Dec 23 11:50	2° $\underline{\mathbb{S}}$ 59'50	-1.7m	conjunction	2218 Apr 16 04:28	25° \mathcal{Y} 43'58	0°-27'-58
opposition	2212 Dec 24 13:08	2° $\underline{\mathbb{S}}$ 34'55	3°17'01	minimum elong	2218 Apr 16 06:47	25° \mathcal{Y} 48'22	0°27'58
	2212 Dec 31 07:45	30° \mathcal{R} \mathbb{I}			2218 Apr 21 19:43	0° \mathcal{B}	
direct	2213 Jan 30 06:47	24° \mathbb{I} 09'48		asc. node	2218 May 29 21:25	28° \mathcal{B} 07'55	
	2213 Mar 04 11:15	0° $\underline{\mathbb{S}}$			2218 Jun 01 11:36	0° \mathbb{I}	
	2213 May 09 22:27	0° \mathcal{O}		max. Earth dist.	2218 Jun 04 15:17	2° \mathbb{I} 15'56	2.45333 AU
	2213 Jul 01 20:27	0° \mathbb{M}		morning rise	2218 Jun 19 08:10	12° \mathbb{I} 42'41	
	2213 Aug 19 19:02	0° $\underline{\mathbb{A}}$			2218 Jul 14 06:58	0° $\underline{\mathbb{S}}$	
	2213 Oct 04 20:23	0° \mathbb{M}			2218 Aug 28 12:49	0° \mathcal{O}	
evening set	2213 Oct 16 13:37	7° \mathbb{M} 55'19			2218 Oct 15 16:26	0° \mathbb{M}	
desc. node	2213 Oct 24 05:17	13° \mathbb{M} 09'41			2218 Dec 07 20:59	0° $\underline{\mathbb{A}}$	
max. Earth dist.	2213 Nov 01 03:38	18° \mathbb{M} 38'40	2.51490 AU	retrograde	2219 Mar 02 11:13	27° $\underline{\mathbb{A}}$ 55'32	
	2213 Nov 17 07:42	0° \mathcal{X}		opposition	2219 Apr 09 19:51	19° $\underline{\mathbb{A}}$ 14'49	2°32'25
				greatest brilliancy	2219 Apr 10 12:30	18° $\underline{\mathbb{A}}$ 58'47	-1.4m
conjunction	2213 Dec 05 17:03	13° \mathcal{X} 11'39	0°-25'-4	min. Earth dist.	2219 Apr 15 03:15	17° $\underline{\mathbb{A}}$ 12'08	0.62552 AU
minimum elong	2213 Dec 05 15:54	13° \mathcal{X} 09'33	0°25'04	direct	2219 May 21 01:22	9° $\underline{\mathbb{A}}$ 16'58	
	2213 Dec 28 13:45	0° $\underline{\mathbb{Z}}$		desc. node	2219 Jun 16 01:34	13° $\underline{\mathbb{A}}$ 08'31	
morning rise	2214 Jan 30 02:20	24° $\underline{\mathbb{Z}}$ 35'00			2219 Jul 26 23:07	0° \mathbb{M}	
	2214 Feb 06 03:33	0° \approx			2219 Sep 15 05:13	0° \mathcal{X}	
	2214 Mar 16 17:51	0° \mathcal{H}			2219 Oct 28 00:29	0° $\underline{\mathbb{Z}}$	
	2214 Apr 24 04:23	0° \mathcal{Y}			2219 Dec 06 17:03	0° \approx	
	2214 Jun 02 09:02	0° \mathcal{B}			2220 Jan 14 03:15	0° \mathcal{H}	
	2214 Jul 13 08:56	0° \mathbb{I}			2220 Feb 21 13:53	0° \mathcal{Y}	
asc. node	2214 Aug 25 00:06	28° \mathbb{I} 56'38			2220 Apr 01 00:18	0° \mathcal{B}	
	2214 Aug 26 15:28	0° $\underline{\mathbb{S}}$		asc. node	2220 Apr 15 21:25	11° \mathcal{B} 01'13	
	2214 Oct 17 01:42	0° \mathcal{O}		evening set	2220 Apr 16 04:09	11° \mathcal{B} 13'35	
retrograde	2214 Dec 21 22:14	20° \mathcal{O} 15'34			2220 May 12 02:58	0° \mathbb{I}	
min. Earth dist.	2215 Jan 28 17:49	11° \mathcal{O} 17'06	0.65987 AU				
opposition	2215 Jan 31 02:31	10° \mathcal{O} 20'11	4°31'19	conjunction	2220 Jun 13 14:44	22° \mathbb{I} 43'44	0°34'56
greatest brilliancy	2215 Jan 30 13:29	10° \mathcal{O} 33'17	-1.3m	minimum elong	2220 Jun 13 13:05	22° \mathbb{I} 40'53	0°34'55
direct	2215 Mar 11 17:32	0° \mathcal{O} 53'56			2220 Jun 24 06:16	0° $\underline{\mathbb{S}}$	
	2215 Jun 07 06:20	0° \mathbb{M}		max. Earth dist.	2220 Jul 12 04:07	12° $\underline{\mathbb{S}}$ 03'19	2.57729 AU
	2215 Jul 30 08:53	0° $\underline{\mathbb{A}}$		morning rise	2220 Aug 05 00:47	27° $\underline{\mathbb{S}}$ 47'53	
desc. node	2215 Sep 11 04:52	27° $\underline{\mathbb{A}}$ 03'08			2220 Aug 08 09:51	0° \mathcal{O}	
	2215 Sep 15 16:07	0° \mathbb{M}			2220 Sep 24 08:50	0° \mathbb{M}	
	2215 Oct 29 08:07	0° \mathcal{X}			2220 Nov 12 03:22	0° $\underline{\mathbb{A}}$	
evening set	2215 Dec 04 05:29	26° \mathcal{X} 11'03			2221 Jan 02 22:40	0° \mathbb{M}	
	2215 Dec 09 07:44	0° $\underline{\mathbb{Z}}$			2221 Mar 07 02:51	0° \mathcal{X}	
max. Earth dist.	2215 Dec 30 13:31	16° $\underline{\mathbb{Z}}$ 09'02	2.38792 AU	retrograde	2221 Apr 16 21:23	8° \mathcal{X} 16'51	
	2216 Jan 17 10:58	0° \approx		desc. node	2221 May 03 00:44	6° \mathcal{X} 37'54	
				opposition	2221 May 22 04:53	0° \mathcal{X} 59'28	0°-55'-3
conjunction	2216 Feb 02 15:24	12° \approx 40'12	-1°-4'-15	greatest brilliancy	2221 May 22 15:19	0° \mathcal{X} 50'11	-2.0m
minimum elong	2216 Feb 02 14:40	12° \approx 38'46	1°04'16		2221 May 24 23:35	30° \mathcal{R} \mathbb{M}	
	2216 Feb 24 15:00	0° \mathcal{H}		min. Earth dist.	2221 May 30 10:08	28° \mathbb{M} 04'51	0.51559 AU
	2216 Apr 02 17:38	0° \mathcal{Y}		direct	2221 Jun 30 00:42	22° \mathbb{M} 03'51	
morning rise	2216 Apr 12 11:23	7° \mathcal{Y} 35'24			2221 Aug 05 14:36	0° \mathcal{X}	
	2216 May 11 16:03	0° \mathcal{B}			2221 Sep 29 10:40	0° $\underline{\mathbb{Z}}$	

	2221 Nov 11 06:27	0°♊			2226 Oct 31 04:56	0°♌		
	2221 Dec 21 06:24	0°♋		morning rise	2226 Nov 23 12:34	15°♌42'37		
	2222 Jan 29 20:49	0°♌			2226 Dec 14 07:41	0°♍		
asc. node	2222 Mar 03 19:40	24°♌30'08		desc. node	2226 Dec 23 22:17	6°♍41'44		
	2222 Mar 11 08:11	0°♎			2227 Jan 25 18:08	0°♏		
	2222 Apr 22 09:37	0°♐			2227 Mar 07 18:42	0°♊		
	2222 Jun 05 07:38	0°♑			2227 Apr 16 20:44	0°♋		
evening set	2222 Jun 07 17:44	1°♑37'08			2227 May 26 20:01	0°♌		
	2222 Jul 20 21:49	0°♒			2227 Jul 07 03:21	0°♍		
					2227 Aug 22 05:07	0°♎		
conjunction	2222 Jul 27 21:01	4°♒30'23	1°05'30	asc. node	2227 Oct 24 16:44	24°♎42'34		
minimum elong	2222 Jul 27 20:15	4°♒29'07	1°05'30	retrograde	2227 Oct 31 03:39	25°♎00'17		
max. Earth dist.	2222 Aug 07 18:23	11°♒31'16	2.65390 AU	min. Earth dist.	2227 Dec 01 03:33	18°♎24'13	0.53295 AU	
	2222 Sep 05 16:25	0°♏		opposition	2227 Dec 08 11:45	15°♎36'08	2°09'11	
morning rise	2222 Sep 12 07:39	4°♏13'01		greatest brilliancy	2227 Dec 07 14:12	15°♎56'45	-1.9m	
	2222 Oct 23 02:07	0°♐		direct	2228 Jan 12 17:11	7°♎47'05		
	2222 Dec 09 20:40	0°♑			2228 Mar 24 20:25	0°♑		
	2223 Jan 27 09:03	0°♒			2228 May 19 19:38	0°♒		
	2223 Mar 19 06:40	0°♓			2228 Jul 09 16:29	0°♏		
desc. node	2223 Mar 21 00:04	0°♓57'57			2228 Aug 26 22:31	0°♐		
	2223 May 21 09:22	0°♊		evening set	2228 Sep 30 12:07	22°♐27'10		
retrograde	2223 Jun 23 16:16	6°♊05'48			2228 Oct 11 19:51	0°♑		
opposition	2223 Jul 24 08:08	0°♊53'42	-6°-12'-28	max. Earth dist.	2228 Oct 19 00:36	4°♑50'56	2.56041 AU	
greatest brilliancy	2223 Jul 25 18:36	0°♊29'26	-2.7m	desc. node	2228 Nov 09 21:21	19°♑50'10		
	2223 Jul 27 12:24	30°♋						
min. Earth dist.	2223 Jul 29 11:03	29°♋27'26	0.39186 AU	conjunction	2228 Nov 17 10:38	25°♑06'11	0°-4'-30	
direct	2223 Aug 25 12:14	25°♋03'49		minimum elong	2228 Nov 17 10:25	25°♑05'49	0°04'31	
	2223 Sep 22 02:35	0°♌		behind sun begin	2228 Nov 16 14:17	24°♑30'36		
	2223 Nov 18 22:40	0°♋		behind sun end	2228 Nov 18 06:33	25°♑41'04		
	2224 Jan 03 02:41	0°♌			2228 Nov 24 09:42	0°♍		
asc. node	2224 Jan 19 18:09	11°♌24'20			2229 Jan 04 21:32	0°♏		
	2224 Feb 15 20:40	0°♎		morning rise	2229 Jan 07 12:14	1°♏55'59		
	2224 Mar 31 04:33	0°♐			2229 Feb 13 18:20	0°♊		
	2224 May 15 16:59	0°♑			2229 Mar 24 15:10	0°♋		
	2224 Jul 01 07:37	0°♒			2229 May 02 07:09	0°♌		
evening set	2224 Jul 18 07:38	10°♒49'45			2229 Jun 10 17:29	0°♍		
	2224 Aug 17 11:47	0°♏			2229 Jul 22 03:55	0°♎		
max. Earth dist.	2224 Aug 30 02:44	8°♏01'28	2.67611 AU		2229 Sep 05 18:54	0°♏		
				asc. node	2229 Sep 10 15:00	2°♏55'16		
conjunction	2224 Sep 02 13:39	10°♏13'21	1°05'20		2229 Nov 04 07:47	0°♒		
minimum elong	2224 Sep 02 14:19	10°♏14'24	1°05'20	retrograde	2229 Dec 08 06:19	6°♒35'13		
	2224 Oct 03 12:42	0°♐			2230 Jan 08 17:00	30°♋		
morning rise	2224 Oct 16 21:37	8°♐36'03		min. Earth dist.	2230 Jan 13 09:25	28°♐10'14	0.63584 AU	
	2224 Nov 18 20:45	0°♑		greatest brilliancy	2230 Jan 16 10:31	26°♐57'03	-1.4m	
	2225 Jan 03 06:08	0°♒		opposition	2230 Jan 17 06:24	26°♐37'07	4°16'15	
desc. node	2225 Feb 04 22:51	22°♒00'05		direct	2230 Feb 24 22:03	17°♐30'32		
	2225 Feb 16 17:33	0°♓			2230 Apr 17 20:40	0°♑		
	2225 Apr 01 13:37	0°♊			2230 Jun 17 10:19	0°♏		
	2225 May 15 12:48	0°♋			2230 Aug 07 08:01	0°♌		
	2225 Jul 01 10:42	0°♌			2230 Sep 23 00:17	0°♍		
retrograde	2225 Sep 08 10:55	25°♌07'59		desc. node	2230 Sep 27 19:57	3°♍13'26		
min. Earth dist.	2225 Oct 05 00:56	20°♌33'06	0.40444 AU		2230 Nov 05 13:29	0°♍		
opposition	2225 Oct 11 22:28	18°♌25'49	-3°-27'-38	evening set	2230 Nov 13 14:24	5°♍44'52		
greatest brilliancy	2225 Oct 10 20:37	18°♌45'45	-2.7m	max. Earth dist.	2230 Nov 29 09:18	17°♍12'56	2.43646 AU	
direct	2225 Nov 11 10:50	12°♌48'54			2230 Dec 16 14:59	0°♏		
asc. node	2225 Dec 06 18:20	16°♌39'42						
	2226 Jan 09 08:25	0°♎		conjunction	2231 Jan 08 02:34	17°♏02'25	0°-54'-17	
	2226 Mar 05 03:27	0°♐		minimum elong	2231 Jan 08 00:29	16°♏58'27	0°54'18	
	2226 Apr 24 00:03	0°♑			2231 Jan 24 21:49	0°♊		
	2226 Jun 11 20:17	0°♒			2231 Mar 04 05:07	0°♋		
	2226 Jul 30 02:26	0°♏		morning rise	2231 Mar 13 17:27	7°♋29'33		
evening set	2226 Aug 24 14:22	16°♏04'45			2231 Apr 11 09:44	0°♌		
	2226 Sep 15 09:13	0°♐			2231 May 20 09:02	0°♍		
max. Earth dist.	2226 Sep 22 15:19	4°♐40'50	2.64415 AU		2231 Jun 29 23:57	0°♎		
				asc. node	2231 Jul 29 15:13	20°♎48'35		
conjunction	2226 Oct 09 02:28	15°♐23'39	0°40'23		2231 Aug 12 05:17	0°♏		
minimum elong	2226 Oct 09 03:34	15°♐25'27	0°40'22		2231 Sep 28 14:14	0°♒		

	2231 Nov 25 16:11	0°♈			2236 Nov 21 07:53	0°♊		
retrograde	2232 Jan 11 22:26	11°♈07'55			2236 Dec 30 10:31	0°♋		
opposition	2232 Feb 21 00:59	1°♈25'32	4°28'32		2237 Feb 07 09:49	0°♌		
greatest brilliancy	2232 Feb 20 23:53	1°♈26'37	-1.2m		2237 Mar 19 08:12	0°♍		
min. Earth dist.	2232 Feb 21 00:52	1°♈25'38	0.67739 AU	asc. node	2237 Mar 20 12:17	0°♎51'44		
	2232 Feb 24 14:55	30°♌♊			2237 Apr 29 22:10	0°♏		
direct	2232 Apr 01 18:33	21°♌♊27'22		evening set	2237 May 20 01:45	14°♏03'16		
	2232 May 13 00:31	0°♈			2237 Jun 12 10:50	0°♐		
	2232 Jul 14 13:05	0°♊						
desc. node	2232 Aug 14 18:39	18°♊33'45		conjunction	2237 Jul 11 19:41	19°♐33'03	0°57'42	
	2232 Sep 01 19:13	0°♌		minimum elong	2237 Jul 11 18:20	19°♐30'49	0°57'41	
	2232 Oct 16 01:08	0°♍			2237 Jul 27 19:11	0°♑		
	2232 Nov 26 03:11	0°♎		max. Earth dist.	2237 Jul 29 00:21	0°♑47'24	2.63034 AU	
	2233 Jan 04 04:59	0°♏		morning rise	2237 Aug 29 00:33	20°♑45'07		
evening set	2233 Jan 10 07:52	4°♏47'23			2237 Sep 12 13:28	0°♈		
	2233 Feb 11 06:56	0°♋			2237 Oct 30 07:50	0°♊		
					2237 Dec 18 03:39	0°♌		
conjunction	2233 Mar 18 15:32	27°♋52'54	0°-51'-54		2238 Feb 07 07:24	0°♍		
minimum elong	2233 Mar 18 18:45	27°♋59'11	0°51'53	desc. node	2238 Apr 06 15:47	29°♍11'04		
	2233 Mar 21 08:30	0°♌			2238 Apr 08 16:26	0°♎		
	2233 Apr 29 07:07	0°♍		retrograde	2238 May 24 19:23	10°♎32'22		
max. Earth dist.	2233 May 07 16:00	6°♌18'21	2.39993 AU	opposition	2238 Jun 26 07:31	4°♎31'53	-4°-11'-17	
morning rise	2233 May 26 16:45	20°♌25'20		greatest brilliancy	2238 Jun 27 22:04	4°♎01'40	-2.5m	
	2233 Jun 08 20:44	0°♏		min. Earth dist.	2238 Jul 04 05:33	2°♎03'48	0.43440 AU	
asc. node	2233 Jun 15 14:38	4°♏50'44			2238 Jul 11 13:05	30°♌♋		
	2233 Jul 21 15:16	0°♐		direct	2238 Jul 31 14:04	27°♋18'05		
	2233 Sep 05 02:26	0°♑			2238 Aug 20 16:23	0°♎		
	2233 Oct 24 06:23	0°♈			2238 Oct 20 20:10	0°♊		
	2233 Dec 21 03:09	0°♊			2238 Dec 03 18:45	0°♌		
retrograde	2234 Feb 15 09:00	14°♊28'08			2239 Jan 14 10:36	0°♍		
opposition	2234 Mar 26 11:17	5°♊25'10	3°21'06	asc. node	2239 Feb 05 10:54	15°♍50'22		
greatest brilliancy	2234 Mar 27 01:59	5°♊10'46	-1.3m		2239 Feb 25 08:17	0°♎		
min. Earth dist.	2234 Mar 30 07:35	3°♊54'53	0.65294 AU		2239 Apr 09 11:46	0°♏		
	2234 Apr 10 00:50	30°♌♈			2239 May 24 05:04	0°♐		
direct	2234 May 06 21:25	25°♈22'51		evening set	2239 Jul 03 22:55	26°♐32'38		
	2234 Jun 04 22:45	0°♊			2239 Jul 09 07:43	0°♑		
desc. node	2234 Jul 02 17:29	10°♊38'34						
	2234 Aug 08 11:41	0°♌		conjunction	2239 Aug 20 07:06	26°♑49'56	1°08'36	
	2234 Sep 24 13:42	0°♍		minimum elong	2239 Aug 20 07:16	26°♑50'13	1°08'36	
	2234 Nov 05 12:20	0°♎		max. Earth dist.	2239 Aug 22 07:50	28°♑07'30	2.67405 AU	
	2234 Dec 14 20:41	0°♏			2239 Aug 25 06:31	0°♈		
	2235 Jan 22 01:51	0°♋		morning rise	2239 Oct 04 01:28	25°♈19'57		
	2235 Mar 01 07:38	0°♌			2239 Oct 11 09:03	0°♊		
evening set	2235 Mar 22 23:02	16°♌41'18			2239 Nov 27 03:19	0°♌		
	2235 Apr 09 12:44	0°♍			2240 Jan 12 09:54	0°♎		
asc. node	2235 May 03 13:00	17°♍47'35		desc. node	2240 Feb 22 15:31	26°♋53'35		
	2235 May 20 09:50	0°♏			2240 Feb 27 09:54	0°♎		
					2240 Apr 13 20:30	0°♏		
conjunction	2235 May 24 19:33	3°♏08'52	0°13'31		2240 Jun 02 08:08	0°♋		
minimum elong	2235 May 24 18:40	3°♏07'17	0°13'30	retrograde	2240 Aug 11 22:16	24°♋38'27		
behind sun begin	2235 May 24 05:28	2°♏43'46		min. Earth dist.	2240 Sep 08 18:56	20°♋05'08	0.37559 AU	
behind sun end	2235 May 25 07:52	3°♏30'48		opposition	2240 Sep 11 18:39	19°♋16'20	-6°00'-49	
max. Earth dist.	2235 Jun 30 17:06	28°♏52'45	2.53367 AU	greatest brilliancy	2240 Sep 11 04:04	19°♋26'17	-2.9m	
	2235 Jul 02 08:33	0°♐		direct	2240 Oct 11 07:11	14°♋19'44		
morning rise	2235 Jul 20 02:15	11°♐58'11			2240 Dec 04 16:26	0°♌		
	2235 Aug 16 10:55	0°♑		asc. node	2240 Dec 23 09:25	9°♌45'27		
	2235 Oct 02 16:35	0°♈			2241 Jan 26 23:15	0°♊		
	2235 Nov 21 12:50	0°♊			2241 Mar 16 01:24	0°♌		
	2236 Jan 16 04:19	0°♌			2241 May 02 13:36	0°♐		
retrograde	2236 Mar 28 02:39	21°♌30'30			2241 Jun 19 07:09	0°♑		
opposition	2236 May 03 19:46	13°♌34'46	0°41'42		2241 Aug 06 00:39	0°♈		
greatest brilliancy	2236 May 04 03:16	13°♌27'49	-1.7m	evening set	2241 Aug 10 07:06	2°♈41'45		
min. Earth dist.	2236 May 11 02:58	10°♌52'31	0.56460 AU	max. Earth dist.	2241 Sep 13 06:01	24°♈17'09	2.66316 AU	
desc. node	2236 May 19 15:48	7°♌59'07			2241 Sep 22 03:40	0°♊		
direct	2236 Jun 12 23:59	4°♌02'53						
	2236 Aug 26 00:22	0°♍		conjunction	2241 Sep 24 17:45	1°♊39'55	0°52'41	
	2236 Oct 11 09:12	0°♎		minimum elong	2241 Sep 24 18:50	1°♊41'41	0°52'41	

	2241 Nov 07 02:51	0°♄		retrograde	2246 Dec 29 14:57	28°♄16'23	
morning rise	2241 Nov 08 07:28	0°♄47'25		min. Earth dist.	2247 Feb 06 07:06	19°♄01'21	0.66888 AU
	2241 Dec 21 15:22	0°♂		opposition	2247 Feb 07 19:51	18°♄24'30	4°33'53
desc. node	2242 Jan 09 13:40	13°♂04'04		greatest brilliancy	2247 Feb 07 10:59	18°♄33'23	-1.3m
	2242 Feb 02 16:54	0°♂		direct	2247 Mar 19 21:44	8°♄49'29	
	2242 Mar 16 12:29	0°♂			2247 May 30 10:28	0°♄	
	2242 Apr 26 12:43	0°♂			2247 Jul 24 18:05	0°♄	
	2242 Jun 06 16:49	0°♂		desc. node	2247 Sep 01 10:04	23°♄58'30	
	2242 Jul 20 07:59	0°♂			2247 Sep 10 15:57	0°♄	
	2242 Sep 15 19:31	0°♄			2247 Oct 24 13:07	0°♂	
retrograde	2242 Oct 13 00:45	4°♄53'35			2247 Dec 04 14:00	0°♂	
	2242 Nov 08 08:28	30°♄		evening set	2247 Dec 17 02:40	9°♂28'47	
asc. node	2242 Nov 10 09:10	29°♄18'21			2248 Jan 12 17:02	0°♂	
min. Earth dist.	2242 Nov 10 18:50	29°♄09'55	0.48063 AU	max. Earth dist.	2248 Feb 07 10:51	20°♂12'38	2.37113 AU
opposition	2242 Nov 18 22:51	26°♄13'14	0°28'10				
greatest brilliancy	2242 Nov 18 16:54	26°♄18'37	-2.2m	conjunction	2248 Feb 18 08:31	28°♂49'16	-1°-4'-10
direct	2242 Dec 22 10:58	19°♄10'04		minimum elong	2248 Feb 18 09:25	28°♂51'04	1°04'11
	2243 Feb 06 09:03	0°♄			2248 Feb 19 20:18	0°♂	
	2243 Apr 07 15:21	0°♂			2248 Mar 28 22:03	0°♂	
	2243 May 29 13:46	0°♄		morning rise	2248 Apr 29 06:40	24°♂15'50	
	2243 Jul 18 03:14	0°♄			2248 May 06 19:39	0°♄	
	2243 Sep 03 21:46	0°♄			2248 Jun 16 08:05	0°♄	
evening set	2243 Sep 16 10:05	8°♄03'45		asc. node	2248 Jul 02 06:30	11°♄22'44	
max. Earth dist.	2243 Oct 08 16:20	22°♄38'42	2.59895 AU		2248 Jul 29 03:44	0°♂	
	2243 Oct 19 17:16	0°♄			2248 Sep 13 01:05	0°♄	
					2248 Nov 02 22:34	0°♄	
conjunction	2243 Nov 01 22:42	8°♄55'20	0°14'48		2249 Jan 15 19:47	0°♄	
minimum elong	2243 Nov 01 23:15	8°♄56'15	0°14'48	retrograde	2249 Feb 01 05:10	1°♄32'32	
behind sun begin	2243 Nov 01 15:12	8°♄42'36			2249 Feb 16 15:22	30°♄	
behind sun end	2243 Nov 02 07:18	9°♄09'55		opposition	2249 Mar 12 20:07	22°♄11'28	3°56'29
desc. node	2243 Nov 27 12:29	26°♄32'23		greatest brilliancy	2249 Mar 13 05:53	22°♄01'49	-1.2m
	2243 Dec 02 11:06	0°♂		min. Earth dist.	2249 Mar 15 04:27	21°♄15'46	0.67034 AU
morning rise	2243 Dec 20 00:51	12°♂27'20		direct	2249 Apr 23 03:57	12°♄11'12	
	2244 Jan 13 06:22	0°♂			2249 Jun 25 07:33	0°♄	
	2244 Feb 22 12:13	0°♂		desc. node	2249 Jul 19 08:42	12°♄19'45	
	2244 Apr 01 18:08	0°♂			2249 Aug 18 12:52	0°♄	
	2244 May 10 18:41	0°♂			2249 Oct 03 01:30	0°♂	
	2244 Jun 19 15:18	0°♄			2249 Nov 13 12:56	0°♂	
	2244 Jul 31 22:13	0°♄			2249 Dec 22 17:14	0°♂	
	2244 Sep 18 11:45	0°♂		greatest brilliancy	2250 Jan 26 22:01	27°♂41'27	1.2m
asc. node	2244 Sep 27 08:48	4°♂39'24			2250 Jan 29 20:08	0°♂	
retrograde	2244 Nov 23 22:00	21°♂50'10		evening set	2250 Feb 23 05:40	19°♂14'41	
min. Earth dist.	2244 Dec 28 04:03	14°♂03'44	0.60186 AU		2250 Mar 08 23:11	0°♂	
greatest brilliancy	2245 Jan 01 11:35	12°♂21'01	-1.6m		2250 Apr 17 00:31	0°♄	
opposition	2245 Jan 02 12:11	11°♂56'35	3°44'43				
direct	2245 Feb 08 23:23	3°♂15'11		conjunction	2250 May 01 00:55	10°♄29'28	0°-12'-28
	2245 May 02 12:21	0°♄		minimum elong	2250 May 01 01:56	10°♄31'20	0°12'29
	2245 Jun 26 08:07	0°♄		behind sun begin	2250 Apr 30 08:51	9°♄59'37	
	2245 Aug 14 21:24	0°♄		behind sun end	2250 May 01 19:01	11°♄03'02	
	2245 Sep 30 04:04	0°♄		asc. node	2250 May 20 05:56	24°♄35'53	
desc. node	2245 Oct 14 11:37	9°♄40'18			2250 May 27 17:19	0°♄	
evening set	2245 Oct 26 05:54	17°♄45'48		max. Earth dist.	2250 Jun 15 12:07	13°♄21'36	2.48318 AU
max. Earth dist.	2245 Nov 09 22:51	28°♄03'38	2.48780 AU	morning rise	2250 Jul 01 04:13	24°♄16'23	
	2245 Nov 12 16:33	0°♂			2250 Jul 09 12:30	0°♂	
					2250 Aug 23 15:27	0°♄	
conjunction	2245 Dec 16 23:42	24°♂52'25	0°-36'-39		2250 Oct 10 08:10	0°♄	
minimum elong	2245 Dec 16 22:02	24°♂49'19	0°36'39		2250 Nov 30 21:46	0°♄	
	2245 Dec 23 21:15	0°♂			2251 Feb 04 02:18	0°♄	
	2246 Feb 01 08:34	0°♂		retrograde	2251 Mar 11 15:21	6°♄25'55	
morning rise	2246 Feb 13 09:22	9°♂19'37			2251 Apr 13 02:01	30°♄	
	2246 Mar 11 20:09	0°♂		opposition	2251 Apr 18 11:26	27°♄59'23	1°57'00
	2246 Apr 19 03:55	0°♂		greatest brilliancy	2251 Apr 19 02:50	27°♄44'42	-1.5m
	2246 May 28 05:39	0°♄		min. Earth dist.	2251 Apr 24 12:54	25°♄40'47	0.60627 AU
	2246 Jul 08 00:37	0°♄		direct	2251 May 29 10:41	18°♄07'26	
asc. node	2246 Aug 15 07:12	26°♄24'24		desc. node	2251 Jun 06 08:15	18°♄31'05	
	2246 Aug 20 18:02	0°♂			2251 Jul 16 06:33	0°♄	
	2246 Oct 09 01:12	0°♄			2251 Sep 08 14:43	0°♂	

	2251 Oct 22 07:12	0°☾			2256 Nov 14 02:28	0°♌		
	2251 Dec 01 07:52	0°♊			2256 Dec 29 03:36	0°♏		
	2252 Jan 08 22:32	0°♈	desc. node		2257 Jan 26 05:02	19°♏05'30		
	2252 Feb 16 12:22	0°♐			2257 Feb 11 01:07	0°☾		
	2252 Mar 27 01:49	0°♉			2257 Mar 25 23:51	0°♊		
asc. node	2252 Apr 06 03:42	7°♉27'35			2257 May 07 12:49	0°♈		
evening set	2252 Apr 29 05:34	24°♉13'59			2257 Jun 20 05:32	0°♐		
	2252 May 07 07:25	0°♊			2257 Aug 10 18:36	0°♉		
	2252 Jun 19 12:53	0°☾	retrograde		2257 Sep 22 01:23	11°♉02'00		
conjunction	2252 Jun 24 09:28	3°☾17'09	0°44'50	min. Earth dist.	2257 Oct 18 23:47	6°♉07'52	0.42924 AU	
minimum elong	2252 Jun 24 07:47	3°☾14'17	0°44'49	opposition	2257 Oct 26 22:08	3°♉31'43	-1°-52'-55	
max. Earth dist.	2252 Jul 18 15:23	19°☾27'49	2.59857 AU	greatest brilliancy	2257 Oct 26 03:54	3°♉46'45	-2.5m	
	2252 Aug 03 17:08	0°♊		direct	2257 Nov 07 16:04	30°♈♐		
morning rise	2252 Aug 14 01:17	6°♊42'32		asc. node	2257 Nov 27 12:08	27°♐23'27		
	2252 Sep 19 13:06	0°♈			2257 Nov 27 01:42	27°♐23'32		
	2252 Nov 06 20:31	0°♊			2257 Dec 18 04:04	0°♉		
	2252 Dec 27 06:44	0°♌			2258 Feb 24 21:38	0°♊		
	2253 Feb 21 15:21	0°♏			2258 Apr 17 22:53	0°☾		
desc. node	2253 Apr 23 07:04	19°♏03'35			2258 Jun 06 15:52	0°♊		
retrograde	2253 Apr 29 08:29	19°♏16'56		evening set	2258 Jul 25 07:35	0°♈		
opposition	2253 Jun 02 19:23	12°♏24'21	-2°00'-54		2258 Sep 01 20:12	24°♈17'30		
greatest brilliancy	2253 Jun 03 17:38	12°♏05'15	-2.1m	max. Earth dist.	2258 Sep 10 18:08	0°♊		
min. Earth dist.	2253 Jun 11 06:50	9°♏30'45	0.48680 AU		2258 Sep 28 08:19	11°♊22'43	2.63027 AU	
direct	2253 Jul 10 14:20	3°♏57'57		conjunction	2258 Oct 17 13:40	24°♊00'16	0°31'45	
	2253 Sep 20 03:33	0°☾		minimum elong	2258 Oct 17 14:38	24°♊01'52	0°31'45	
	2253 Nov 04 05:37	0°♊			2258 Oct 26 14:00	0°♌		
	2253 Dec 15 02:13	0°♈		morning rise	2258 Dec 02 17:11	25°♌14'23		
	2254 Jan 24 04:35	0°♐			2258 Dec 09 13:46	0°♏		
asc. node	2254 Feb 22 02:38	21°♐20'34		desc. node	2258 Dec 14 03:43	3°♏11'51		
	2254 Mar 06 00:34	0°♉			2259 Jan 20 18:52	0°☾		
	2254 Apr 17 08:51	0°♊			2259 Mar 02 12:17	0°♊		
	2254 May 31 11:56	0°☾			2259 Apr 11 06:11	0°♈		
evening set	2254 Jun 17 15:57	11°☾22'13			2259 May 20 19:08	0°♐		
	2254 Jul 16 05:29	0°♊			2259 Jun 30 09:05	0°♉		
conjunction	2254 Aug 05 15:12	13°♊08'18	1°07'53		2259 Aug 13 09:14	0°♊		
minimum elong	2254 Aug 05 14:47	13°♊07'38	1°07'53	asc. node	2259 Oct 10 12:27	0°☾		
max. Earth dist.	2254 Aug 13 05:12	17°♊59'43	2.66352 AU	retrograde	2259 Oct 15 00:05	1°☾27'27		
	2254 Sep 01 00:49	0°♈			2259 Nov 09 13:32	5°☾37'18		
morning rise	2254 Sep 20 07:44	12°♈15'37		min. Earth dist.	2259 Dec 07 22:51	30°♈♊		
	2254 Oct 18 07:05	0°♊		greatest brilliancy	2259 Dec 11 18:28	28°♊34'34	0.55951 AU	
	2254 Dec 04 15:23	0°♌		opposition	2259 Dec 17 10:09	26°♊22'38	-1.8m	
	2255 Jan 21 04:04	0°♏		direct	2259 Dec 18 11:08	25°♊58'17	2°52'07	
	2255 Mar 10 16:30	0°☾			2260 Jan 23 12:53	17°♊48'22		
desc. node	2255 Mar 11 06:05	0°☾20'32			2260 Mar 13 22:01	0°☾		
	2255 May 02 03:49	0°♊			2260 May 13 12:00	0°♊		
retrograde	2255 Jul 11 20:05	23°♊00'43			2260 Jul 04 11:34	0°♈		
opposition	2255 Aug 10 23:57	18°♊02'39	-6°-47'-55		2260 Aug 22 03:30	0°♊		
greatest brilliancy	2255 Aug 11 19:22	17°♊49'39	-2.8m	evening set	2260 Oct 07 04:13	0°♌		
min. Earth dist.	2255 Aug 13 11:34	17°♊22'49	0.37765 AU	max. Earth dist.	2260 Oct 09 13:01	1°♌35'20		
direct	2255 Sep 10 12:35	12°♊49'25		desc. node	2260 Oct 26 08:34	13°♌00'28	2.53596 AU	
	2255 Nov 05 12:18	0°♈			2260 Oct 31 02:42	16°♌16'53		
	2255 Dec 25 17:54	0°♐			2260 Nov 19 17:50	0°♏		
asc. node	2256 Jan 10 02:36	10°♐00'49		conjunction	2260 Nov 27 14:16	5°♏34'43	0°-16'-18	
	2256 Feb 09 06:29	0°♉		minimum elong	2260 Nov 27 13:32	5°♏33'25	0°16'19	
	2256 Mar 25 12:43	0°♊			2260 Dec 31 03:28	0°☾		
	2256 May 10 14:01	0°☾		morning rise	2261 Jan 19 20:57	14°☾46'01		
	2256 Jun 26 12:22	0°♊			2261 Feb 08 21:01	0°♊		
evening set	2256 Jul 26 19:46	19°♊12'41			2261 Mar 19 14:34	0°♈		
	2256 Aug 12 20:28	0°♈			2261 Apr 27 03:12	0°♐		
max. Earth dist.	2256 Sep 04 08:07	14°♈17'15	2.67381 AU		2261 Jun 05 09:18	0°♉		
conjunction	2256 Sep 10 15:54	18°♈19'08	1°01'41		2261 Jul 16 11:45	0°♊		
minimum elong	2256 Sep 10 16:46	18°♈20'31	1°01'41	asc. node	2261 Aug 30 03:03	0°☾		
	2256 Sep 28 21:46	0°♊			2261 Aug 31 23:51	1°☾10'37		
morning rise	2256 Oct 24 22:26	16°♊49'04		retrograde	2261 Oct 22 13:39	0°♊		
					2261 Dec 16 03:34	14°♊58'07		

min. Earth dist.	2262 Jan 22 05:21	6°♏14'25	0.65032 AU		2267 Apr 04 16:50	0°♎	
opposition	2262 Jan 25 06:48	5°♏00'43	4°26'55	evening set	2267 Apr 06 12:55	1°♎22'31	
greatest brilliancy	2262 Jan 24 14:26	5°♏17'09	-1.3m	asc. node	2267 Apr 23 21:03	14°♎13'18	
	2262 Feb 07 18:09	30°♎♎			2267 May 15 15:41	0°♎	
direct	2262 Mar 05 12:21	25°♎♎42'50					
	2262 Apr 02 22:32	0°♏		conjunction	2267 Jun 05 22:41	15°♎02'40	0°26'28
	2262 Jun 10 23:08	0°♎		minimum elong	2267 Jun 05 21:13	15°♎00'06	0°26'27
	2262 Aug 02 02:23	0°♎			2267 Jun 27 15:20	0°♎	
desc. node	2262 Sep 18 02:10	29°♎♎56'18		max. Earth dist.	2267 Jul 08 06:12	7°♎11'29	2.55861 AU
	2262 Sep 18 04:23	0°♎		morning rise	2267 Jul 29 23:13	21°♎39'14	
	2262 Oct 31 20:29	0°♎			2267 Aug 11 17:00	0°♏	
evening set	2262 Nov 24 23:27	17°♎♎25'43			2267 Sep 27 17:18	0°♎	
	2262 Dec 11 21:57	0°♎			2267 Nov 15 20:30	0°♎	
max. Earth dist.	2262 Dec 14 05:07	1°♎♎43'35	2.40828 AU		2268 Jan 07 21:57	0°♎	
	2263 Jan 20 03:19	0°♎			2268 Mar 24 05:38	0°♎	
				retrograde	2268 Apr 07 22:58	1°♎♎14'41	
conjunction	2263 Jan 22 02:39	1°♎♎32'05	-1°-1'-19		2268 Apr 21 23:24	30°♎♎	
minimum elong	2263 Jan 22 01:04	1°♎♎28'58	1°01'20	desc. node	2268 May 09 22:18	25°♎05'08	
	2263 Feb 27 08:58	0°♎		opposition	2268 May 13 22:58	23°♎38'58	0°-11'-7
morning rise	2263 Mar 31 00:06	24°♎♎54'33		greatest brilliancy	2268 Apr 18 19:09	0°♎30'04	-2.0m
	2263 Apr 06 12:08	0°♎		min. Earth dist.	2268 May 21 19:56	20°♎47'57	0.53828 AU
	2263 May 15 10:02	0°♎		direct	2268 Jun 22 10:58	14°♎24'51	
	2263 Jun 24 23:00	0°♎			2268 Aug 15 11:34	0°♎	
asc. node	2263 Jul 19 22:21	17°♎♎40'29			2268 Oct 04 08:39	0°♎	
	2263 Aug 06 22:44	0°♎			2268 Nov 15 05:44	0°♎	
	2263 Sep 22 13:49	0°♏			2268 Dec 24 19:08	0°♎	
	2263 Nov 15 17:53	0°♎			2269 Feb 02 01:41	0°♎	
retrograde	2264 Jan 19 14:21	18°♎♎51'10		asc. node	2269 Mar 10 19:50	27°♎♎29'26	
opposition	2264 Feb 28 14:00	9°♎15'25	4°19'56		2269 Mar 14 05:47	0°♎	
greatest brilliancy	2264 Feb 28 17:01	9°♎12'25	-1.2m		2269 Apr 25 00:42	0°♎	
min. Earth dist.	2264 Feb 29 09:45	8°♎55'45	0.67781 AU	evening set	2269 May 30 22:10	24°♎44'43	
	2264 Mar 30 14:32	30°♎♎			2269 Jun 07 17:01	0°♎	
direct	2264 Apr 09 14:22	29°♎♎21'57					
	2264 Apr 20 00:43	0°♎		conjunction	2269 Jul 21 03:18	28°♎41'42	1°02'48
	2264 Jul 07 19:48	0°♎		minimum elong	2269 Jul 21 02:16	28°♎40'02	1°02'47
desc. node	2264 Aug 05 00:54	16°♎♎07'40			2269 Jul 23 03:28	0°♏	
	2264 Aug 27 10:02	0°♎		max. Earth dist.	2269 Aug 03 17:11	7°♏29'40	2.64433 AU
	2264 Oct 11 01:47	0°♎		morning rise	2269 Sep 06 06:48	28°♏59'25	
	2264 Nov 21 07:11	0°♎			2269 Sep 07 20:56	0°♎	
	2264 Dec 30 09:44	0°♎			2269 Oct 25 09:40	0°♎	
evening set	2265 Jan 25 17:07	20°♎♎41'19			2269 Dec 12 14:01	0°♎	
	2265 Feb 06 11:40	0°♎			2270 Jan 31 01:20	0°♎	
	2265 Mar 16 13:01	0°♎			2270 Mar 25 15:51	0°♎	
				desc. node	2270 Mar 27 21:39	1°♎08'36	
conjunction	2265 Apr 04 00:24	14°♎♎21'22	0°-39'-10	retrograde	2270 Jun 10 02:10	24°♎♎46'27	
minimum elong	2265 Apr 04 03:29	14°♎♎27'20	0°39'09	opposition	2270 Jul 11 11:12	19°♎♎14'36	-5°-24'-38
	2265 Apr 24 11:32	0°♎		greatest brilliancy	2270 Jul 13 03:20	18°♎♎44'54	-2.6m
max. Earth dist.	2265 May 25 11:24	23°♎♎03'09	2.42890 AU	min. Earth dist.	2270 Jul 18 03:50	17°♎♎16'17	0.40888 AU
	2265 Jun 04 01:08	0°♎		direct	2270 Aug 14 01:39	12°♎♎47'26	
asc. node	2265 Jun 05 21:07	1°♎♎19'16			2270 Oct 08 01:58	0°♎	
morning rise	2265 Jun 09 13:16	3°♎♎57'34			2270 Nov 25 11:20	0°♎	
	2265 Jul 16 18:25	0°♎			2271 Jan 07 16:34	0°♎	
	2265 Aug 31 00:42	0°♏		asc. node	2271 Jan 26 18:08	13°♎♎25'07	
	2265 Oct 18 11:23	0°♎			2271 Feb 19 10:45	0°♎	
	2265 Dec 12 01:27	0°♎			2271 Apr 04 03:40	0°♎	
retrograde	2266 Feb 23 21:09	22°♎♎32'56			2271 May 19 05:51	0°♎	
opposition	2266 Apr 03 14:03	13°♎♎41'34	2°54'18		2271 Jul 04 14:14	0°♏	
greatest brilliancy	2266 Apr 04 06:08	13°♎♎25'56	-1.4m	evening set	2271 Jul 12 20:03	5°♏16'35	
min. Earth dist.	2266 Apr 08 05:29	11°♎♎53'24	0.63908 AU		2271 Aug 20 15:29	0°♎	
direct	2266 May 14 22:17	3°♎♎40'56					
desc. node	2266 Jun 22 23:19	11°♎♎42'21		conjunction	2271 Aug 28 12:20	5°♎00'12	1°07'09
	2266 Jul 31 23:57	0°♎		minimum elong	2271 Aug 28 12:48	5°♎00'57	1°07'08
	2266 Sep 18 17:55	0°♎		max. Earth dist.	2271 Aug 27 12:43	4°♎22'40	2.67624 AU
	2266 Oct 31 04:48	0°♎			2271 Oct 06 17:01	0°♎	
	2266 Dec 09 18:08	0°♎		morning rise	2271 Oct 11 23:28	3°♎22'33	
	2267 Jan 17 02:07	0°♎			2271 Nov 22 05:41	0°♎	
	2267 Feb 24 09:57	0°♎			2272 Jan 07 00:03	0°♎	

desc. node	2272 Feb 12 20:24	24° \mathcal{A} 29'13		direct	2277 Feb 18 06:22	12° \mathcal{S} 00'11	
	2272 Feb 21 02:23	0° \mathcal{S}			2277 Apr 23 19:34	0° \mathcal{Q}	
	2272 Apr 05 21:30	0° \approx			2277 Jun 20 12:50	0° \mathcal{M}	
	2272 May 21 13:25	0° \mathcal{H}			2277 Aug 09 20:55	0° \mathcal{L}	
	2272 Jul 12 17:08	0° \mathcal{Y}			2277 Sep 25 10:23	0° \mathcal{M}	
retrograde	2272 Aug 27 23:43	12° \mathcal{Y} 37'10		desc. node	2277 Oct 04 17:42	6° \mathcal{M} 14'56	
min. Earth dist.	2272 Sep 23 18:19	8° \mathcal{Y} 09'53	0.38834 AU	evening set	2277 Nov 05 09:47	28° \mathcal{M} 08'52	
greatest brilliancy	2272 Sep 28 05:00	6° \mathcal{Y} 52'28	-2.8m		2277 Nov 08 00:33	0° \mathcal{A}	
opposition	2272 Sep 29 05:55	6° \mathcal{Y} 34'19	-4°-40'-20	max. Earth dist.	2277 Nov 20 03:21	8° \mathcal{A} 39'55	2.45971 AU
direct	2272 Oct 29 02:59	1° \mathcal{Y} 19'39			2277 Dec 19 04:42	0° \mathcal{S}	
asc. node	2272 Dec 13 18:06	12° \mathcal{Y} 39'40					
	2273 Jan 17 08:17	0° \mathcal{B}		conjunction	2277 Dec 29 01:47	7° \mathcal{S} 25'09	0°-47'-18
	2273 Mar 09 08:25	0° \mathcal{H}		minimum elong	2277 Dec 28 23:45	7° \mathcal{S} 21'20	0°47'19
	2273 Apr 27 00:17	0° \mathcal{S}			2278 Jan 27 14:11	0° \approx	
	2273 Jun 14 07:32	0° \mathcal{Q}		morning rise	2278 Feb 28 20:43	25° \approx 11'30	
	2273 Aug 01 07:49	0° \mathcal{M}			2278 Mar 06 23:37	0° \mathcal{H}	
evening set	2273 Aug 18 11:36	10° \mathcal{M} 49'19		greatest brilliancy	2278 Mar 27 14:12	16° \mathcal{H} 11'51	1.2m
	2273 Sep 17 13:16	0° \mathcal{L}			2278 Apr 14 05:21	0° \mathcal{Y}	
max. Earth dist.	2273 Sep 18 14:51	0° \mathcal{L} 41'10	2.65366 AU		2278 May 23 04:39	0° \mathcal{B}	
					2278 Jul 02 19:40	0° \mathcal{H}	
conjunction	2273 Oct 02 21:47	9° \mathcal{L} 55'24	0°45'54	asc. node	2278 Aug 05 15:10	23° \mathcal{H} 37'03	
minimum elong	2273 Oct 02 22:54	9° \mathcal{L} 57'13	0°45'54		2278 Aug 15 03:22	0° \mathcal{S}	
	2273 Nov 02 11:16	0° \mathcal{M}			2278 Oct 02 01:26	0° \mathcal{Q}	
morning rise	2273 Nov 16 21:04	9° \mathcal{M} 38'01			2278 Dec 03 14:01	0° \mathcal{M}	
	2273 Dec 16 18:53	0° \mathcal{A}		retrograde	2279 Jan 06 06:29	6° \mathcal{M} 09'33	
desc. node	2273 Dec 30 19:45	9° \mathcal{A} 44'08			2279 Feb 06 03:38	30° \mathcal{R} \mathcal{Q}	
	2274 Jan 28 12:29	0° \mathcal{S}		opposition	2279 Feb 15 10:47	26° \mathcal{Q} 22'16	4°32'10
	2274 Mar 10 21:18	0° \approx		greatest brilliancy	2279 Feb 15 06:10	26° \mathcal{Q} 26'53	-1.2m
	2274 Apr 20 08:26	0° \mathcal{H}		min. Earth dist.	2279 Feb 14 17:48	26° \mathcal{Q} 39'17	0.67491 AU
	2274 May 30 18:03	0° \mathcal{Y}		direct	2279 Mar 27 22:23	16° \mathcal{Q} 39'33	
	2274 Jul 11 18:33	0° \mathcal{B}			2279 May 20 23:14	0° \mathcal{M}	
	2274 Aug 29 07:09	0° \mathcal{H}			2279 Jul 18 20:01	0° \mathcal{L}	
retrograde	2274 Oct 23 14:34	17° \mathcal{H} 08'41		desc. node	2279 Aug 22 16:00	21° \mathcal{L} 05'39	
asc. node	2274 Oct 31 16:52	16° \mathcal{H} 39'13			2279 Sep 05 13:12	0° \mathcal{M}	
min. Earth dist.	2274 Nov 22 14:55	10° \mathcal{H} 55'16	0.51001 AU		2279 Oct 19 16:35	0° \mathcal{A}	
opposition	2274 Nov 30 09:26	8° \mathcal{H} 00'53	1°30'54		2279 Nov 29 19:20	0° \mathcal{S}	
greatest brilliancy	2274 Nov 29 16:31	8° \mathcal{H} 16'44	-2.1m	evening set	2279 Dec 30 22:30	23° \mathcal{S} 46'58	
direct	2275 Jan 03 20:32	0° \mathcal{H} 31'07			2280 Jan 07 22:17	0° \approx	
	2275 Mar 30 21:47	0° \mathcal{S}			2280 Feb 15 01:03	0° \mathcal{H}	
	2275 May 23 20:50	0° \mathcal{Q}					
	2275 Jul 13 03:30	0° \mathcal{M}		conjunction	2280 Mar 05 17:36	15° \mathcal{H} 33'42	0°-59'-3
	2275 Aug 30 05:07	0° \mathcal{L}		minimum elong	2280 Mar 05 20:06	15° \mathcal{H} 38'39	0°59'03
evening set	2275 Sep 24 22:27	16° \mathcal{L} 37'54			2280 Mar 24 02:26	0° \mathcal{Y}	
max. Earth dist.	2275 Oct 15 01:28	29° \mathcal{L} 57'45	2.57862 AU	max. Earth dist.	2280 Apr 14 06:16	16° \mathcal{Y} 26'38	2.37967 AU
	2275 Oct 15 02:49	0° \mathcal{M}			2280 May 01 23:44	0° \mathcal{B}	
				morning rise	2280 May 15 04:50	9° \mathcal{B} 56'42	
conjunction	2275 Nov 11 03:44	18° \mathcal{M} 23'15	0°03'56		2280 Jun 11 11:33	0° \mathcal{H}	
minimum elong	2275 Nov 11 03:51	18° \mathcal{M} 23'29	0°03'57	asc. node	2280 Jun 22 14:46	7° \mathcal{H} 59'15	
behind sun begin	2275 Nov 10 08:01	17° \mathcal{M} 49'16			2280 Jul 24 04:48	0° \mathcal{S}	
behind sun end	2275 Nov 11 23:41	18° \mathcal{M} 57'43			2280 Sep 07 17:50	0° \mathcal{Q}	
desc. node	2275 Nov 17 19:06	22° \mathcal{M} 59'28			2280 Oct 27 10:01	0° \mathcal{M}	
	2275 Nov 27 19:28	0° \mathcal{A}			2280 Dec 27 15:19	0° \mathcal{L}	
morning rise	2275 Dec 30 17:49	23° \mathcal{A} 35'56		retrograde	2281 Feb 09 05:47	9° \mathcal{L} 22'11	
	2276 Jan 08 11:33	0° \mathcal{S}		opposition	2281 Mar 20 14:15	0° \mathcal{L} 10'31	3°37'09
	2276 Feb 17 12:46	0° \approx		greatest brilliancy	2281 Mar 21 02:54	29° \mathcal{M} 58'03	-1.3m
	2276 Mar 27 13:38	0° \mathcal{H}			2281 Mar 21 00:56	30° \mathcal{R} \mathcal{M}	
	2276 May 05 08:51	0° \mathcal{Y}		min. Earth dist.	2281 Mar 23 18:01	28° \mathcal{M} 55'59	0.66203 AU
	2276 Jun 13 22:05	0° \mathcal{B}		direct	2281 May 01 00:13	20° \mathcal{M} 08'33	
	2276 Jul 25 14:17	0° \mathcal{H}			2281 Jun 14 11:10	0° \mathcal{L}	
	2276 Sep 10 00:50	0° \mathcal{S}		desc. node	2281 Jul 09 14:56	11° \mathcal{L} 20'38	
asc. node	2276 Sep 17 14:58	4° \mathcal{S} 23'21			2281 Aug 12 06:35	0° \mathcal{M}	
	2276 Nov 20 13:20	0° \mathcal{Q}			2281 Sep 27 16:35	0° \mathcal{A}	
retrograde	2276 Dec 02 05:27	0° \mathcal{Q} 53'26			2281 Nov 08 11:24	0° \mathcal{S}	
	2276 Dec 13 11:07	30° \mathcal{R} \mathcal{S}			2281 Dec 17 18:25	0° \approx	
min. Earth dist.	2277 Jan 06 12:58	22° \mathcal{S} 45'22	0.62189 AU		2282 Jan 24 22:33	0° \mathcal{H}	
greatest brilliancy	2277 Jan 10 03:52	21° \mathcal{S} 18'38	-1.5m		2282 Mar 04 02:38	0° \mathcal{Y}	
opposition	2277 Jan 11 02:22	20° \mathcal{S} 56'11	4°05'29	evening set	2282 Mar 11 02:06	5° \mathcal{Y} 25'34	

	2282 Apr 12 05:00	0°♄			2286 Oct 13 14:18	0°♎		
asc. node	2282 May 10 12:46	21°♄00'17			2286 Nov 29 14:28	0°♍		
					2287 Jan 15 09:07	0°♈		
conjunction	2282 May 14 21:05	24°♄10'04	0°02'51	desc. node	2287 Mar 01 12:40	28°♈51'37		
minimum elong	2282 May 14 20:54	24°♄09'45	0°02'50		2287 Mar 03 07:47	0°♉		
behind sun begin	2282 May 13 19:24	23°♄23'27			2287 Apr 20 15:41	0°♊		
behind sun end	2282 May 15 22:25	24°♄55'59			2287 Jun 15 12:17	0°♋		
	2282 May 22 22:54	0°♌		retrograde	2287 Jul 30 07:34	11°♋05'16		
max. Earth dist.	2282 Jun 24 18:08	23°♌07'01	2.51180 AU	opposition	2287 Aug 29 11:18	6°♋03'09	-6°-39'-30	
	2282 Jul 04 18:35	0°♍		greatest brilliancy	2287 Aug 29 11:15	6°♋03'11	-2.9m	
morning rise	2282 Jul 12 05:09	5°♍03'39		min. Earth dist.	2287 Aug 28 22:11	6°♋11'50	0.37225 AU	
	2282 Aug 18 19:38	0°♎		direct	2287 Sep 28 02:21	1°♋08'17		
	2282 Oct 05 04:02	0°♏			2287 Dec 15 06:17	0°♐		
	2282 Nov 24 13:52	0°♑		asc. node	2287 Dec 31 09:09	9°♐35'15		
	2283 Jan 21 19:10	0°♒			2288 Feb 01 23:03	0°♑		
retrograde	2283 Mar 21 08:04	15°♒19'30			2288 Mar 19 13:25	0°♒		
opposition	2283 Apr 27 14:16	7°♒08'59	1°15'38		2288 May 05 08:02	0°♓		
greatest brilliancy	2283 Apr 28 02:06	6°♒57'51	-1.6m		2288 Jun 21 16:04	0°♑		
min. Earth dist.	2283 May 04 08:34	4°♒36'35	0.58433 AU	evening set	2288 Aug 04 03:50	27°♑26'24		
	2283 May 18 15:59	30°♒♎			2288 Aug 08 05:01	0°♏		
desc. node	2283 May 27 13:32	28°♑12'16		max. Earth dist.	2288 Sep 09 13:20	20°♏32'47	2.66898 AU	
direct	2283 Jun 07 04:16	27°♑26'39						
	2283 Jun 27 17:35	0°♒		conjunction	2288 Sep 18 17:09	26°♏24'19	0°56'50	
	2283 Sep 01 04:54	0°♈		minimum elong	2288 Sep 18 18:10	26°♏25'57	0°56'50	
	2283 Oct 16 06:28	0°♉			2288 Sep 24 07:31	0°♑		
	2283 Nov 25 19:03	0°♊		morning rise	2288 Nov 02 01:53	25°♑10'44		
	2284 Jan 03 15:54	0°♋			2288 Nov 09 09:39	0°♒		
	2284 Feb 11 10:11	0°♌			2288 Dec 24 04:12	0°♈		
	2284 Mar 22 03:15	0°♄		desc. node	2289 Jan 16 11:06	15°♈58'18		
asc. node	2284 Mar 27 11:58	3°♄58'02			2289 Feb 05 14:48	0°♉		
	2284 May 02 12:01	0°♌			2289 Mar 19 21:45	0°♊		
evening set	2284 May 11 08:22	6°♌14'20			2289 Apr 30 12:02	0°♋		
	2284 Jun 14 20:01	0°♍			2289 Jun 11 12:04	0°♌		
					2289 Jul 27 02:00	0°♄		
conjunction	2284 Jul 04 12:35	13°♍12'18	0°52'54	retrograde	2289 Oct 04 09:26	25°♄30'27		
minimum elong	2284 Jul 04 11:02	13°♍09'44	0°52'54	min. Earth dist.	2289 Nov 01 05:34	20°♄09'44	0.45694 AU	
max. Earth dist.	2284 Jul 24 19:41	26°♍35'04	2.61708 AU	opposition	2289 Nov 09 11:00	17°♄18'03	0°-27'-19	
	2284 Jul 30 01:18	0°♎		greatest brilliancy	2289 Nov 09 05:50	17°♄22'34	-2.4m	
morning rise	2284 Aug 22 17:30	15°♎17'58		asc. node	2289 Nov 17 08:41	14°♄40'26		
	2284 Sep 14 19:13	0°♏		direct	2289 Dec 12 02:56	10°♄38'36		
	2284 Nov 01 18:08	0°♑			2290 Feb 14 17:53	0°♒		
	2284 Dec 21 03:49	0°♒			2290 Apr 11 10:41	0°♓		
	2285 Feb 11 23:45	0°♈			2290 Jun 01 07:19	0°♑		
desc. node	2285 Apr 13 12:48	26°♈34'10			2290 Jul 20 10:59	0°♒		
	2285 Apr 28 03:45	0°♉			2290 Sep 06 02:39	0°♑		
retrograde	2285 May 13 04:25	1°♉18'49		evening set	2290 Sep 10 03:23	2°♑35'17		
	2285 May 27 17:32	30°♒♈		max. Earth dist.	2290 Oct 04 04:29	18°♑12'58	2.61397 AU	
opposition	2285 Jun 15 14:20	24°♈54'26	-3°-13'-37		2290 Oct 21 23:16	0°♒		
greatest brilliancy	2285 Jun 16 23:24	24°♈27'22	-2.3m					
min. Earth dist.	2285 Jun 23 23:31	22°♈10'35	0.45734 AU	conjunction	2290 Oct 26 05:39	2°♒51'26	0°22'14	
direct	2285 Jul 22 03:04	17°♈05'26		minimum elong	2290 Oct 26 06:24	2°♒52'42	0°22'14	
	2285 Sep 07 01:41	0°♉		desc. node	2290 Dec 04 09:56	29°♒41'18		
	2285 Oct 27 03:10	0°♊			2290 Dec 04 20:38	0°♈		
	2285 Dec 08 09:24	0°♋		morning rise	2290 Dec 12 08:10	5°♈14'57		
	2286 Jan 18 05:40	0°♌			2291 Jan 15 21:07	0°♉		
asc. node	2286 Feb 12 11:01	18°♌24'03			2291 Feb 25 08:34	0°♊		
	2286 Feb 28 13:42	0°♄			2291 Apr 05 19:46	0°♋		
	2286 Apr 12 06:47	0°♌			2291 May 15 01:12	0°♌		
	2286 May 26 16:13	0°♍			2291 Jun 24 03:16	0°♄		
evening set	2286 Jun 27 02:19	20°♍37'36			2291 Aug 05 22:16	0°♒		
	2286 Jul 11 13:44	0°♎			2291 Sep 25 16:43	0°♓		
				asc. node	2291 Oct 05 08:32	4°♓30'49		
conjunction	2286 Aug 14 02:13	21°♎29'52	1°08'47	retrograde	2291 Nov 18 11:25	15°♓33'20		
minimum elong	2286 Aug 14 02:10	21°♎29'47	1°08'47	min. Earth dist.	2291 Dec 21 20:01	8°♓06'12	0.58385 AU	
max. Earth dist.	2286 Aug 18 13:18	24°♎20'39	2.67042 AU	opposition	2291 Dec 27 19:43	5°♓44'40	3°25'46	
	2286 Aug 27 10:18	0°♏		greatest brilliancy	2291 Dec 26 18:01	6°♓10'02	-1.7m	
morning rise	2286 Sep 28 05:01	20°♏12'46			2292 Jan 13 11:49	30°♒♌		

direct	2292 Feb 02 16:39	27° Π 16'36		asc. node	2297 May 27 05:47	27° \mathcal{B} 48'32	
	2292 Feb 24 15:45	0° \mathfrak{G}			2297 May 30 06:32	0° Π	
	2292 May 06 13:43	0° \mathcal{Q}		max. Earth dist.	2297 Jun 07 13:07	5° Π 56'18	2.45908 AU
	2292 Jun 29 01:51	0° \mathfrak{M}		morning rise	2297 Jun 22 04:09	16° Π 17'20	
	2292 Aug 17 06:39	0° \mathfrak{A}			2297 Jul 11 23:23	0° \mathfrak{G}	
	2292 Oct 02 12:03	0° \mathfrak{M}			2297 Aug 26 01:51	0° \mathcal{Q}	
evening set	2292 Oct 18 21:13	11° \mathfrak{M} 04'30			2297 Oct 12 23:42	0° \mathfrak{M}	
desc. node	2292 Oct 21 09:01	12° \mathfrak{M} 46'50			2297 Dec 04 12:13	0° \mathfrak{A}	
max. Earth dist.	2292 Nov 03 07:55	21° \mathfrak{M} 44'06	2.51002 AU		2298 Feb 20 17:25	0° \mathfrak{M}	
	2292 Nov 15 02:15	0° \mathfrak{A}		retrograde	2298 Mar 04 16:46	0° \mathfrak{M} 49'45	
					2298 Mar 16 02:48	30° \mathfrak{R} \mathfrak{A}	
conjunction	2292 Dec 08 07:01	16° \mathfrak{A} 39'29	0°-28'-5	opposition	2298 Apr 11 22:56	22° \mathfrak{A} 11'15	2°22'47
minimum elong	2292 Dec 08 05:44	16° \mathfrak{A} 37'08	0°28'06	greatest brilliancy	2298 Apr 12 15:04	21° \mathfrak{A} 55'43	-1.5m
	2292 Dec 26 10:12	0° \mathfrak{Z}		min. Earth dist.	2298 Apr 17 09:13	20° \mathfrak{A} 06'00	0.62213 AU
morning rise	2293 Feb 02 05:25	28° \mathfrak{Z} 36'21		direct	2298 May 23 03:18	12° \mathfrak{A} 14'22	
	2293 Feb 04 00:54	0° \approx		desc. node	2298 Jun 13 05:53	14° \mathfrak{A} 50'44	
	2293 Mar 14 15:14	0° \mathfrak{H}			2298 Jul 23 01:46	0° \mathfrak{M}	
	2293 Apr 22 00:53	0° \mathfrak{Y}			2298 Sep 12 12:36	0° \mathfrak{A}	
	2293 May 31 03:33	0° \mathfrak{B}			2298 Oct 25 15:59	0° \mathfrak{Z}	
	2293 Jul 10 23:49	0° Π			2298 Dec 04 11:54	0° \approx	
asc. node	2293 Aug 22 07:11	28° Π 55'19			2299 Jan 11 23:20	0° \mathfrak{H}	
	2293 Aug 23 22:58	0° \mathfrak{G}			2299 Feb 19 09:55	0° \mathfrak{Y}	
	2293 Oct 13 09:38	0° \mathcal{Q}			2299 Mar 30 19:28	0° \mathfrak{B}	
retrograde	2293 Dec 23 21:53	23° \mathcal{Q} 08'38		asc. node	2299 Apr 14 03:38	10° \mathfrak{B} 38'15	
min. Earth dist.	2294 Jan 30 21:22	14° \mathcal{Q} 07'22	0.66182 AU	evening set	2299 Apr 20 07:50	15° \mathfrak{B} 09'54	
opposition	2294 Feb 02 02:56	13° \mathcal{Q} 13'39	4°32'41		2299 May 10 20:45	0° Π	
greatest brilliancy	2294 Feb 01 14:35	13° \mathcal{Q} 26'02	-1.3m				
direct	2294 Mar 13 20:45	3° \mathcal{Q} 45'52		conjunction	2299 Jun 17 06:54	26° Π 08'51	0°37'44
	2294 Jun 03 17:58	0° \mathfrak{M}		minimum elong	2299 Jun 17 05:11	26° Π 05'56	0°37'42
	2294 Jul 27 15:01	0° \mathfrak{A}			2299 Jun 22 22:25	0° \mathfrak{G}	
desc. node	2294 Sep 08 07:29	26° \mathfrak{A} 46'12		max. Earth dist.	2299 Jul 15 02:01	14° \mathfrak{G} 54'05	2.58177 AU
	2294 Sep 13 05:40	0° \mathfrak{M}			2299 Aug 07 00:11	0° \mathcal{Q}	
	2294 Oct 27 02:04	0° \mathfrak{A}		morning rise	2299 Aug 08 07:34	0° \mathcal{Q} 51'07	
evening set	2294 Dec 07 03:09	29° \mathfrak{A} 57'28			2299 Sep 22 20:49	0° \mathfrak{M}	
	2294 Dec 07 04:30	0° \mathfrak{Z}			2299 Nov 10 11:04	0° \mathfrak{A}	
max. Earth dist.	2295 Jan 05 15:59	22° \mathfrak{Z} 27'35	2.38391 AU		2299 Dec 31 18:58	0° \mathfrak{M}	
	2295 Jan 15 09:18	0° \approx			2300 Mar 02 05:46	0° \mathfrak{A}	
				retrograde	2300 Apr 20 14:30	11° \mathfrak{A} 35'27	
conjunction	2295 Feb 06 01:41	16° \approx 58'54	-1°-4'-40	desc. node	2300 May 01 04:42	10° \mathfrak{A} 53'17	
minimum elong	2295 Feb 06 01:18	16° \approx 58'08	1°04'42	opposition	2300 May 25 19:37	4° \mathfrak{A} 22'18	-1°-11'-2
	2295 Feb 22 13:45	0° \mathfrak{H}		greatest brilliancy	2300 May 26 08:58	4° \mathfrak{A} 10'32	-2.0m
	2295 Apr 01 15:47	0° \mathfrak{Y}		min. Earth dist.	2300 Jun 03 03:31	1° \mathfrak{A} 26'46	0.51039 AU
morning rise	2295 Apr 17 05:16	12° \mathfrak{Y} 07'20			2300 Jun 07 12:39	30° \mathfrak{R} \mathfrak{M}	
	2295 May 10 12:36	0° \mathfrak{B}		direct	2300 Jul 03 11:49	25° \mathfrak{M} 31'39	
	2295 Jun 19 23:45	0° Π			2300 Jul 30 06:26	0° \mathfrak{A}	
asc. node	2295 Jul 10 06:12	14° Π 26'23			2300 Sep 27 08:08	0° \mathfrak{Z}	
	2295 Aug 01 19:16	0° \mathfrak{G}			2300 Nov 09 17:17	0° \approx	
	2295 Sep 16 20:54	0° \mathcal{Q}			2300 Dec 19 21:42	0° \mathfrak{H}	
	2295 Nov 07 17:18	0° \mathfrak{M}			2301 Jan 28 13:33	0° \mathfrak{Y}	
retrograde	2296 Jan 27 08:48	26° \mathfrak{M} 35'37		asc. node	2301 Mar 02 02:29	24° \mathfrak{Y} 11'55	
opposition	2296 Mar 07 04:11	17° \mathfrak{M} 07'28	4°07'31		2301 Mar 10 00:50	0° \mathfrak{B}	
greatest brilliancy	2296 Mar 07 11:02	17° \mathfrak{M} 00'40	-1.2m		2301 Apr 21 01:27	0° Π	
min. Earth dist.	2296 Mar 08 19:52	16° \mathfrak{M} 28'06	0.67491 AU		2301 Jun 03 22:24	0° \mathfrak{G}	
direct	2296 Apr 17 09:33	7° \mathfrak{M} 09'49		evening set	2301 Jun 11 06:07	4° \mathfrak{G} 53'30	
	2296 Jun 30 04:51	0° \mathfrak{A}			2301 Jul 19 11:40	0° \mathcal{Q}	
desc. node	2296 Jul 26 06:00	14° \mathfrak{A} 04'48					
	2296 Aug 21 17:41	0° \mathfrak{M}		conjunction	2301 Jul 31 03:01	7° \mathcal{Q} 31'33	1°06'19
	2296 Oct 05 22:19	0° \mathfrak{A}		minimum elong	2301 Jul 31 02:21	7° \mathcal{Q} 30'28	1°06'18
	2296 Nov 16 08:21	0° \mathfrak{Z}		max. Earth dist.	2301 Aug 10 06:17	14° \mathcal{Q} 02'51	2.65607 AU
	2296 Dec 25 12:38	0° \approx			2301 Sep 04 05:29	0° \mathfrak{M}	
	2297 Feb 01 15:15	0° \mathfrak{H}		morning rise	2301 Sep 15 09:06	7° \mathfrak{M} 05'15	
evening set	2297 Feb 10 17:09	7° \mathfrak{H} 10'40			2301 Oct 21 14:09	0° \mathfrak{A}	
	2297 Mar 11 17:16	0° \mathfrak{Y}			2301 Dec 08 06:18	0° \mathfrak{M}	
					2302 Jan 25 12:41	0° \mathfrak{A}	
conjunction	2297 Apr 19 14:56	29° \mathfrak{Y} 57'02	0°-24'-15		2302 Mar 16 17:49	0° \mathfrak{Z}	
minimum elong	2297 Apr 19 16:58	0° \mathfrak{B} 00'52	0°24'14	desc. node	2302 Mar 19 03:27	1° \mathfrak{Z} 22'30	
	2297 Apr 19 16:30	0° \mathfrak{B}			2302 May 14 14:06	0° \approx	

retrograde	2302 Jun 28 11:46	10° 29 29'39			2307 Oct 11 11:16	0° 28	
opposition	2302 Jul 29 02:05	5° 21 21'04	-6°-23'-16	max. Earth dist.	2307 Oct 22 22:21	7° 28 43'22	2.55587 AU
greatest brilliancy	2302 Jul 30 10:14	4° 28 58'40	-2.8m	desc. node	2307 Nov 09 00:17	19° 28 25'47	
min. Earth dist.	2302 Aug 02 18:01	4° 28 03'27	0.38866 AU				
	2302 Aug 22 18:37	30° 28		conjunction	2307 Nov 21 21:01	28° 28 24'16	0°-7'-38
direct	2302 Aug 29 20:41	29° 28 39'02		minimum elong	2307 Nov 21 20:42	28° 28 23'42	0°07'39
	2302 Sep 05 23:06	0° 28		behind sun begin	2307 Nov 21 02:01	27° 28 50'55	
	2302 Nov 16 04:35	0° 28		behind sun end	2307 Nov 22 15:22	28° 28 56'32	
	2303 Jan 01 04:47	0° 28			2307 Nov 24 03:25	0° 28	
asc. node	2303 Jan 18 02:24	11° 28 29'09			2308 Jan 04 16:50	0° 28	
	2303 Feb 14 05:27	0° 28		morning rise	2308 Jan 12 07:57	5° 28 39'11	
	2303 Mar 30 15:49	0° 28			2308 Feb 13 14:33	0° 28	
	2303 May 15 05:05	0° 28			2308 Mar 23 11:32	0° 28	
	2303 Jun 30 20:04	0° 28			2308 May 01 02:45	0° 28	
evening set	2303 Jul 22 11:59	13° 28 24'21			2308 Jun 09 10:56	0° 28	
	2303 Aug 17 00:44	0° 28			2308 Jul 20 16:45	0° 28	
max. Earth dist.	2303 Sep 02 18:04	10° 28 37'35	2.67601 AU		2308 Sep 03 20:18	0° 28	
				asc. node	2308 Sep 08 23:56	3° 28 09'47	
conjunction	2303 Sep 06 15:31	13° 28 06'18	1°04'23		2308 Oct 30 12:32	0° 28	
minimum elong	2303 Sep 06 16:15	13° 28 07'27	1°04'23	retrograde	2308 Dec 11 06:17	9° 28 31'48	
	2303 Oct 03 02:17	0° 28		min. Earth dist.	2309 Jan 16 13:47	1° 28 03'49	0.63875 AU
morning rise	2303 Oct 20 22:28	11° 28 28'45			2309 Jan 19 05:33	30° 28	
	2303 Nov 18 10:42	0° 28		opposition	2309 Jan 20 07:52	29° 28 33'39	4°20'05
	2304 Jan 02 19:35	0° 28		greatest brilliancy	2309 Jan 19 12:25	29° 28 53'07	-1.4m
desc. node	2304 Feb 04 02:42	21° 28 45'52		direct	2309 Feb 28 03:13	20° 28 25'02	
	2304 Feb 16 05:07	0° 28			2309 Apr 13 15:06	0° 28	
	2304 Mar 30 21:06	0° 28			2309 Jun 15 08:32	0° 28	
	2304 May 13 11:44	0° 28			2309 Aug 05 17:15	0° 28	
	2304 Jun 28 08:23	0° 28			2309 Sep 21 14:58	0° 28	
retrograde	2304 Sep 12 17:50	29° 28 36'23		desc. node	2309 Sep 25 23:36	2° 28 54'14	
min. Earth dist.	2304 Oct 09 05:59	24° 28 59'00	0.40878 AU		2309 Nov 04 07:34	0° 28	
greatest brilliancy	2304 Oct 15 10:06	23° 28 04'02	-2.7m	evening set	2309 Nov 17 05:25	9° 28 14'16	
opposition	2304 Oct 16 10:30	22° 28 44'59	-3°-4'-43	max. Earth dist.	2309 Dec 03 06:12	20° 28 56'03	2.43078 AU
direct	2304 Nov 16 03:53	17° 28 02'14			2309 Dec 15 11:12	0° 28	
asc. node	2304 Dec 05 01:46	19° 28 15'06					
	2305 Jan 05 00:40	0° 28		conjunction	2310 Jan 12 05:44	21° 28 04'31	0°-56'-18
	2305 Mar 02 21:27	0° 28		minimum elong	2310 Jan 12 03:44	21° 28 00'40	0°56'19
	2305 Apr 22 04:52	0° 28			2310 Jan 23 19:07	0° 28	
	2305 Jun 10 05:19	0° 28			2310 Mar 03 02:35	0° 28	
	2305 Jul 28 13:55	0° 28		morning rise	2310 Mar 18 13:54	12° 28 11'09	
evening set	2305 Aug 27 16:45	18° 28 58'58			2310 Apr 10 06:35	0° 28	
	2305 Sep 13 22:43	0° 28			2310 May 19 04:24	0° 28	
max. Earth dist.	2305 Sep 25 04:14	7° 28 14'37	2.64180 AU		2310 Jun 28 16:46	0° 28	
				asc. node	2310 Jul 27 22:48	20° 28 13'24	
conjunction	2305 Oct 12 05:28	18° 28 21'20	0°38'02		2310 Aug 10 17:45	0° 28	
minimum elong	2305 Oct 12 06:31	18° 28 23'05	0°38'01		2310 Sep 26 17:15	0° 28	
	2305 Oct 29 20:16	0° 28			2310 Nov 22 00:20	0° 28	
morning rise	2305 Nov 26 18:14	18° 28 49'07		retrograde	2311 Jan 14 21:19	13° 28 55'42	
	2305 Dec 13 00:27	0° 28		opposition	2311 Feb 23 23:50	4° 28 14'15	4°26'20
desc. node	2305 Dec 22 01:30	6° 28 17'38		greatest brilliancy	2311 Feb 23 23:29	4° 28 14'37	-1.2m
	2306 Jan 24 11:42	0° 28		min. Earth dist.	2311 Feb 24 02:53	4° 28 11'13	0.67783 AU
	2306 Mar 06 12:17	0° 28			2311 Mar 07 00:58	30° 28	
	2306 Apr 15 13:18	0° 28		direct	2311 Apr 05 19:33	24° 28 25'11	
	2306 May 25 09:55	0° 28			2311 May 08 15:53	0° 28	
	2306 Jul 05 10:47	0° 28			2311 Jul 13 11:33	0° 28	
	2306 Aug 19 16:25	0° 28		desc. node	2311 Aug 13 22:26	18° 28 27'33	
asc. node	2306 Oct 23 00:02	27° 28 13'30			2311 Sep 01 06:35	0° 28	
retrograde	2306 Nov 03 11:20	28° 28 12'54			2311 Oct 15 18:23	0° 28	
min. Earth dist.	2306 Dec 04 17:17	21° 28 44'35	0.53802 AU		2311 Nov 25 23:43	0° 28	
opposition	2306 Dec 11 23:07	18° 28 15'58	2°21'54		2312 Jan 04 03:08	0° 28	
greatest brilliancy	2306 Dec 11 00:00	19° 28 20'10	-1.9m	evening set	2312 Jan 15 16:17	9° 28 02'42	
direct	2307 Jan 16 07:51	11° 28 05'02			2312 Feb 11 05:25	0° 28	
	2307 Mar 22 16:22	0° 28			2312 Mar 20 06:17	0° 28	
	2307 May 18 19:28	0° 28					
	2307 Jul 09 00:29	0° 28		conjunction	2312 Mar 23 08:48	2° 28 25'41	0°-49'-8
	2307 Aug 26 10:52	0° 28		minimum elong	2312 Mar 23 12:06	2° 28 32'08	0°49'07
evening set	2307 Oct 04 17:52	25° 28 31'01			2312 Apr 28 03:24	0° 28	

max. Earth dist.	2312 May 13 02:10	11°♄14'44	2.40516 AU	min. Earth dist.	2317 Jul 08 07:24	6°♁07'46	0.42937 AU
morning rise	2312 May 31 01:05	24°♄29'48		direct	2317 Aug 04 14:31	1°♁25'27	
	2312 Jun 07 14:50	0°♂			2317 Oct 18 04:43	0°≈	
asc. node	2312 Jun 13 20:54	4°♂30'16			2317 Dec 01 23:00	0°♄	
	2312 Jul 20 06:30	0°♁			2318 Jan 12 21:12	0°♂	
	2312 Sep 03 13:30	0°♂		asc. node	2318 Feb 03 18:11	15°♂41'39	
	2312 Oct 22 09:01	0°♄			2318 Feb 23 21:17	0°♄	
	2312 Dec 17 19:52	0°♂			2318 Apr 08 01:25	0°♂	
retrograde	2313 Feb 18 12:01	17°♂19'12			2318 May 22 18:38	0°♁	
opposition	2313 Mar 29 12:31	8°♂18'05	3°13'36	evening set	2318 Jul 07 05:02	29°♁34'14	
greatest brilliancy	2313 Mar 30 03:19	8°♂03'38	-1.3m		2318 Jul 07 21:03	0°♂	
min. Earth dist.	2313 Apr 02 11:54	6°♂44'58	0.65066 AU				
	2313 Apr 23 15:33	30°♄		conjunction	2318 Aug 23 09:55	29°♂44'21	1°08'18
direct	2313 May 09 22:30	28°♄16'13		minimum elong	2318 Aug 23 10:12	29°♂44'47	1°08'17
	2313 May 27 04:52	0°♂			2318 Aug 23 19:46	0°♄	
desc. node	2313 Jun 30 20:56	11°♂22'25		max. Earth dist.	2318 Aug 24 19:24	0°♄37'38	2.67469 AU
	2313 Aug 06 08:49	0°♄		morning rise	2318 Oct 07 02:44	28°♄12'23	
	2313 Sep 23 01:46	0°♄			2318 Oct 09 22:10	0°♂	
	2313 Nov 04 06:24	0°♁			2318 Nov 25 15:46	0°♄	
	2313 Dec 13 17:37	0°≈			2319 Jan 10 20:22	0°♄	
	2314 Jan 20 23:51	0°♄		desc. node	2319 Feb 20 17:39	26°♄46'06	
	2314 Feb 28 05:23	0°♂			2319 Feb 25 15:59	0°♁	
evening set	2314 Mar 27 07:36	20°♂52'03			2319 Apr 12 17:02	0°≈	
	2314 Apr 08 09:15	0°♄			2319 May 31 00:28	0°♄	
asc. node	2314 May 01 20:37	17°♄25'57		retrograde	2319 Aug 17 12:05	29°♄24'06	
	2314 May 19 04:24	0°♂		min. Earth dist.	2319 Sep 14 03:42	24°♄53'26	0.37731 AU
				opposition	2319 Sep 17 15:57	23°♄55'17	-5°-44'-53
conjunction	2314 May 28 17:56	6°♂49'39	0°16'59	greatest brilliancy	2319 Sep 16 22:42	24°♄07'12	-2.9m
minimum elong	2314 May 28 16:51	6°♂47'44	0°16'57	direct	2319 Oct 17 04:46	18°♄56'16	
	2314 Jul 01 00:48	0°♁			2319 Nov 30 17:33	0°♂	
max. Earth dist.	2314 Jul 03 22:35	1°♁58'57	2.53843 AU	asc. node	2319 Dec 22 17:36	10°♂42'06	
morning rise	2314 Jul 23 13:45	15°♁12'22			2320 Jan 25 14:52	0°♄	
	2314 Aug 15 00:35	0°♂			2320 Mar 14 05:44	0°♂	
	2314 Oct 01 02:50	0°♄			2320 Apr 30 22:33	0°♁	
	2314 Nov 19 16:15	0°♂			2320 Jun 17 18:14	0°♂	
	2315 Jan 13 08:09	0°♄			2320 Aug 04 13:15	0°♄	
retrograde	2315 Apr 01 14:17	24°♄38'01		evening set	2320 Aug 13 09:23	5°♄34'47	
opposition	2315 May 08 05:11	16°♄45'40	0°28'08	max. Earth dist.	2320 Sep 15 19:51	26°♄51'02	2.66145 AU
greatest brilliancy	2315 May 08 10:25	16°♄40'50	-1.8m		2320 Sep 20 17:38	0°♂	
min. Earth dist.	2315 May 15 15:39	14°♄01'18	0.55981 AU				
desc. node	2315 May 18 19:48	12°♄53'59		conjunction	2320 Sep 27 19:36	4°♂33'38	0°50'51
direct	2315 Jun 17 06:43	7°♄16'59		minimum elong	2320 Sep 27 20:42	4°♂35'25	0°50'51
	2315 Aug 24 10:04	0°♄			2320 Nov 05 17:54	0°♄	
	2315 Oct 10 17:37	0°♁		morning rise	2320 Nov 11 10:45	3°♄47'02	
	2315 Nov 20 23:14	0°≈			2320 Dec 20 06:56	0°♄	
	2315 Dec 30 04:33	0°♄		desc. node	2321 Jan 07 17:00	12°♄42'53	
	2316 Feb 07 04:36	0°♂			2321 Feb 01 08:10	0°♁	
asc. node	2316 Mar 18 20:01	0°♄32'07			2321 Mar 15 02:35	0°≈	
	2316 Mar 18 02:36	0°♄			2321 Apr 25 00:26	0°♄	
	2316 Apr 28 15:28	0°♂			2321 Jun 04 23:34	0°♂	
evening set	2316 May 23 17:25	17°♂28'25			2321 Jul 18 01:15	0°♄	
	2316 Jun 11 02:41	0°♁			2321 Sep 09 11:02	0°♂	
				retrograde	2321 Oct 16 14:47	8°♂39'09	
conjunction	2316 Jul 15 04:11	22°♁39'47	0°59'14	asc. node	2321 Nov 08 16:57	4°♂48'34	
minimum elong	2316 Jul 15 02:54	22°♁37'41	0°59'14	min. Earth dist.	2321 Nov 14 15:49	2°♂49'08	0.48637 AU
	2316 Jul 26 09:31	0°♂		opposition	2321 Nov 22 17:41	29°♄52'38	0°45'27
max. Earth dist.	2316 Jul 31 16:32	3°♂26'23	2.63308 AU	greatest brilliancy	2321 Nov 22 08:18	0°♂01'12	-2.2m
morning rise	2316 Sep 01 03:48	23°♂40'35			2321 Nov 22 09:37	30°♄	
	2316 Sep 11 02:17	0°♄		direct	2321 Dec 26 09:18	22°♄44'14	
	2316 Oct 28 18:31	0°♂			2322 Feb 01 00:17	0°♂	
	2316 Dec 16 09:50	0°♄			2322 Apr 05 08:15	0°♁	
	2317 Feb 05 01:26	0°♄			2322 May 27 18:45	0°♂	
	2317 Apr 03 22:27	0°♁			2322 Jul 16 13:17	0°♄	
desc. node	2317 Apr 04 18:53	0°♁22'23			2322 Sep 02 11:08	0°♂	
retrograde	2317 May 29 08:15	14°♁26'11		evening set	2322 Sep 19 12:26	10°♂59'04	
opposition	2317 Jun 30 14:04	8°♁31'10	-4°-28'-55	max. Earth dist.	2322 Oct 11 06:43	25°♂15'57	2.59541 AU
greatest brilliancy	2317 Jul 02 06:07	8°♁00'03	-2.5m		2322 Oct 18 09:16	0°♄	

conjunction	2322 Nov 05 03:45	11° \mathbb{M} 59'31	0°11'55		2327 Sep 12 10:03	0° Ω	
minimum elong	2322 Nov 05 04:12	12° \mathbb{M} 00'16	0°11'55		2327 Nov 01 17:44	0° \mathbb{M}	
behind sun begin	2322 Nov 04 14:32	11° \mathbb{M} 37'01			2328 Jan 07 18:28	0° $\underline{\Omega}$	
behind sun end	2322 Nov 05 17:51	12° \mathbb{M} 23'32		retrograde	2328 Feb 05 05:47	4° $\underline{\Omega}$ 22'19	
desc. node	2322 Nov 25 16:32	26° \mathbb{M} 08'24			2328 Mar 02 09:22	30° \mathbb{R} \mathbb{M}	
	2322 Dec 01 05:06	0° \mathbb{X}		opposition	2328 Mar 15 19:58	25° \mathbb{M} 02'41	3°51'04
morning rise	2322 Dec 23 12:16	15° \mathbb{X} 49'14		greatest brilliancy	2328 Mar 16 06:11	24° \mathbb{M} 52'36	-1.3m
	2323 Jan 12 01:36	0° $\overline{\Omega}$		min. Earth dist.	2328 Mar 18 07:26	24° \mathbb{M} 03'59	0.66909 AU
	2323 Feb 21 07:49	0° \approx		direct	2328 Apr 26 05:04	15° \mathbb{M} 02'09	
	2323 Apr 01 13:11	0° \mathbb{X}			2328 Jun 22 01:58	0° $\underline{\Omega}$	
	2323 May 10 12:07	0° \mathbb{Y}		desc. node	2328 Jul 17 12:24	12° $\underline{\Omega}$ 35'30	
	2323 Jun 19 05:25	0° \mathbb{B}			2328 Aug 16 17:49	0° \mathbb{M}	
	2323 Jul 31 05:11	0° \mathbb{I}			2328 Oct 01 16:04	0° \mathbb{X}	
	2323 Sep 16 20:09	0° \mathbb{E}			2328 Nov 12 07:58	0° $\overline{\Omega}$	
asc. node	2323 Sep 26 14:55	5° $\underline{\Omega}$ 19'37			2328 Dec 21 14:25	0° \approx	
retrograde	2323 Nov 28 00:46	24° $\underline{\Omega}$ 57'50		greatest brilliancy	2329 Jan 17 04:19	20° \approx 51'49	1.2m
min. Earth dist.	2324 Jan 01 11:59	17° $\underline{\Omega}$ 07'43	0.60615 AU		2329 Jan 28 17:56	0° \mathbb{X}	
opposition	2324 Jan 06 17:30	15° $\underline{\Omega}$ 03'08	3°51'33	evening set	2329 Feb 27 19:14	23° \mathbb{X} 41'42	
greatest brilliancy	2324 Jan 05 16:56	15° $\underline{\Omega}$ 27'32	-1.6m		2329 Mar 07 20:32	0° \mathbb{Y}	
direct	2324 Feb 13 09:01	6° $\underline{\Omega}$ 18'48			2329 Apr 15 20:36	0° \mathbb{B}	
	2324 Apr 29 18:34	0° Ω					
	2324 Jun 24 11:18	0° \mathbb{M}		conjunction	2329 May 05 07:07	14° \mathbb{B} 31'54	0°-8'-38
	2324 Aug 13 08:06	0° $\underline{\Omega}$		minimum elong	2329 May 05 07:47	14° \mathbb{B} 33'10	0°08'38
	2324 Sep 28 19:12	0° \mathbb{M}		behind sun begin	2329 May 04 08:54	13° \mathbb{B} 50'50	
desc. node	2324 Oct 12 15:05	9° \mathbb{M} 18'32		behind sun end	2329 May 06 06:41	15° \mathbb{B} 15'27	
evening set	2324 Oct 29 15:01	21° \mathbb{M} 00'02		asc. node	2329 May 18 12:38	24° \mathbb{B} 14'16	
	2324 Nov 11 10:49	0° \mathbb{X}			2329 May 26 11:32	0° \mathbb{I}	
max. Earth dist.	2324 Nov 13 06:46	1° \mathbb{X} 17'52	2.48276 AU	max. Earth dist.	2329 Jun 19 00:59	16° \mathbb{I} 44'39	2.48881 AU
				morning rise	2329 Jul 04 21:11	27° \mathbb{I} 44'11	
conjunction	2324 Dec 20 16:35	28° \mathbb{X} 28'42	0°-39'-26		2329 Jul 08 04:25	0° \mathbb{E}	
minimum elong	2324 Dec 20 14:48	28° \mathbb{X} 25'23	0°39'26		2329 Aug 22 04:25	0° Ω	
	2324 Dec 22 17:41	0° $\overline{\Omega}$			2329 Oct 08 16:23	0° \mathbb{M}	
	2325 Jan 31 06:15	0° \approx			2329 Nov 28 18:25	0° $\underline{\Omega}$	
morning rise	2325 Feb 17 17:28	13° \approx 33'08			2330 Jan 29 20:41	0° \mathbb{M}	
	2325 Mar 10 18:04	0° \mathbb{X}		retrograde	2330 Mar 14 22:54	9° \mathbb{M} 26'29	
	2325 Apr 18 01:03	0° \mathbb{Y}		opposition	2330 Apr 21 17:03	1° \mathbb{M} 02'30	1°45'50
	2325 May 27 00:51	0° \mathbb{B}		greatest brilliancy	2330 Apr 22 07:26	0° \mathbb{M} 48'50	-1.6m
	2325 Jul 06 16:19	0° \mathbb{I}			2330 Apr 24 10:39	30° \mathbb{R} $\underline{\Omega}$	
asc. node	2325 Aug 13 14:38	26° \mathbb{I} 19'26		min. Earth dist.	2330 Apr 27 21:29	28° $\underline{\Omega}$ 41'35	0.60245 AU
	2325 Aug 19 03:26	0° \mathbb{E}		direct	2330 Jun 01 14:55	21° $\underline{\Omega}$ 12'21	
	2325 Oct 06 18:27	0° Ω		desc. node	2330 Jun 04 11:18	21° $\underline{\Omega}$ 15'27	
	2325 Dec 18 21:48	0° \mathbb{M}			2330 Jul 11 22:20	0° \mathbb{M}	
retrograde	2326 Jan 01 14:10	1° \mathbb{M} 08'48			2330 Sep 06 16:56	0° \mathbb{X}	
	2326 Jan 14 15:38	30° \mathbb{R} Ω			2330 Oct 20 21:01	0° $\overline{\Omega}$	
min. Earth dist.	2326 Feb 09 10:10	21° Ω 51'12	0.67040 AU		2330 Nov 30 02:20	0° \approx	
opposition	2326 Feb 10 19:52	21° Ω 17'28	4°33'56		2331 Jan 07 18:46	0° \mathbb{X}	
greatest brilliancy	2326 Feb 10 11:44	21° Ω 25'36	-1.2m		2331 Feb 15 08:44	0° \mathbb{Y}	
direct	2326 Mar 23 00:45	11° Ω 40'56			2331 Mar 26 21:15	0° \mathbb{B}	
	2326 May 27 10:23	0° \mathbb{M}		asc. node	2331 Apr 05 11:37	7° \mathbb{B} 07'00	
	2326 Jul 22 21:50	0° $\underline{\Omega}$		evening set	2331 May 04 03:01	27° \mathbb{B} 54'43	
desc. node	2326 Aug 30 13:21	23° $\underline{\Omega}$ 45'39			2331 May 07 01:17	0° \mathbb{I}	
	2326 Sep 09 04:34	0° \mathbb{M}			2331 Jun 19 05:00	0° \mathbb{E}	
	2326 Oct 23 06:27	0° \mathbb{X}					
	2326 Dec 03 10:08	0° $\overline{\Omega}$		conjunction	2331 Jun 28 21:41	6° $\underline{\Omega}$ 33'11	0°47'10
evening set	2326 Dec 21 04:17	13° $\overline{\Omega}$ 26'52		minimum elong	2331 Jun 28 20:00	6° $\underline{\Omega}$ 30'21	0°47'08
	2327 Jan 11 14:41	0° \approx		max. Earth dist.	2331 Jul 22 13:00	22° $\underline{\Omega}$ 17'06	2.60229 AU
	2327 Feb 18 18:26	0° \mathbb{X}			2331 Aug 03 07:29	0° Ω	
				morning rise	2331 Aug 18 06:27	9° Ω 42'10	
conjunction	2327 Feb 22 22:39	3° \mathbb{X} 18'07	-1°-3'-24		2331 Sep 19 01:29	0° \mathbb{M}	
minimum elong	2327 Feb 22 23:58	3° \mathbb{X} 20'42	1°03'26		2331 Nov 06 05:33	0° $\underline{\Omega}$	
max. Earth dist.	2327 Feb 23 01:50	3° \mathbb{X} 24'23	2.37028 AU		2331 Dec 26 07:36	0° \mathbb{M}	
	2327 Mar 28 19:43	0° \mathbb{Y}			2332 Feb 19 09:53	0° \mathbb{X}	
morning rise	2327 May 04 22:10	28° \mathbb{Y} 40'34		desc. node	2332 Apr 21 09:56	21° \mathbb{X} 59'16	
	2327 May 06 15:59	0° \mathbb{B}		retrograde	2332 May 03 10:44	22° \mathbb{X} 50'14	
	2327 Jun 16 02:09	0° \mathbb{I}		opposition	2332 Jun 06 16:54	16° \mathbb{X} 03'05	-2°-18'-34
asc. node	2327 Jul 01 14:35	11° \mathbb{I} 07'02		greatest brilliancy	2332 Jun 07 18:06	15° \mathbb{X} 41'41	-2.2m
	2327 Jul 28 18:24	0° \mathbb{E}		min. Earth dist.	2332 Jun 15 05:23	13° \mathbb{X} 10'13	0.48108 AU

direct	2332 Jul 14 07:55	7°♂43'26			2337 Oct 25 05:56	0°♂	
	2332 Sep 17 06:27	0°♂		morning rise	2337 Dec 06 00:06	28°♂24'15	
	2332 Nov 02 10:08	0°≈			2337 Dec 08 07:13	0°♂	
	2332 Dec 13 14:29	0°♂		desc. node	2337 Dec 12 07:35	2°♂47'55	
	2333 Jan 22 19:53	0°♀			2338 Jan 19 13:13	0°♂	
asc. node	2333 Feb 20 11:15	21°♀06'52			2338 Mar 01 06:53	0°≈	
	2333 Mar 04 16:49	0°♂			2338 Apr 10 00:13	0°♂	
	2333 Apr 16 00:52	0°♂			2338 May 19 11:20	0°♀	
	2333 May 30 03:10	0°♂			2338 Jun 28 20:50	0°♂	
evening set	2333 Jun 21 00:24	14°♂28'55			2338 Aug 11 08:46	0°♂	
	2333 Jul 14 19:53	0°♂			2338 Oct 05 02:30	0°♂	
				asc. node	2338 Oct 13 08:33	3°♂08'02	
conjunction	2333 Aug 08 18:22	16°♂03'07	1°08'15	retrograde	2338 Nov 12 18:24	8°♂52'53	
minimum elong	2333 Aug 08 18:03	16°♂02'37	1°08'16	min. Earth dist.	2338 Dec 15 04:37	1°♂46'21	0.56415 AU
max. Earth dist.	2333 Aug 15 16:18	20°♂28'37	2.66503 AU		2338 Dec 19 17:55	30°♂	
	2333 Aug 30 14:36	0°♂		opposition	2338 Dec 21 19:12	29°♂11'51	3°02'23
morning rise	2333 Sep 23 07:48	15°♂04'40		greatest brilliancy	2338 Dec 20 17:25	29°♂37'00	-1.8m
	2333 Oct 16 20:14	0°♂		direct	2339 Jan 27 00:55	20°♂58'38	
	2333 Dec 03 03:01	0°♂			2339 Mar 10 08:30	0°♂	
	2334 Jan 19 11:44	0°♂			2339 May 12 07:31	0°♂	
	2334 Mar 08 14:20	0°♂			2339 Jul 03 18:20	0°♂	
desc. node	2334 Mar 09 09:58	0°♂30'04			2339 Aug 21 15:43	0°♂	
	2334 Apr 28 18:18	0°≈			2339 Oct 06 20:05	0°♂	
retrograde	2334 Jul 17 00:44	27°≈43'37		evening set	2339 Oct 13 19:15	4°♂40'31	
opposition	2334 Aug 16 00:49	22°≈46'57	-6°-50'-7	max. Earth dist.	2339 Oct 30 06:37	15°♂53'39	2.53129 AU
greatest brilliancy	2334 Aug 16 16:58	22°≈36'15	-2.9m	desc. node	2339 Oct 30 06:25	15°♂53'18	
min. Earth dist.	2334 Aug 18 00:12	22°≈15'35	0.37560 AU		2339 Nov 19 12:20	0°♂	
direct	2334 Sep 15 07:12	17°≈39'27					
	2334 Oct 31 16:06	0°♂		conjunction	2339 Dec 02 01:38	8°♂55'43	0°-19'-22
	2334 Dec 23 08:32	0°♀		minimum elong	2339 Dec 02 00:46	8°♂54'10	0°19'22
asc. node	2335 Jan 08 09:11	10°♀16'46			2339 Dec 30 23:37	0°♂	
	2335 Feb 07 10:31	0°♂		morning rise	2340 Jan 24 19:23	18°♂36'18	
	2335 Mar 24 21:55	0°♂			2340 Feb 08 17:58	0°≈	
	2335 May 10 01:28	0°♂			2340 Mar 18 11:29	0°♂	
	2335 Jun 26 00:55	0°♂			2340 Apr 25 23:11	0°♀	
evening set	2335 Jul 30 22:35	22°♂06'15			2340 Jun 04 03:15	0°♂	
	2335 Aug 12 09:53	0°♂			2340 Jul 15 01:46	0°♂	
max. Earth dist.	2335 Sep 07 23:00	16°♂51'44	2.67323 AU		2340 Aug 28 08:31	0°♂	
				asc. node	2340 Aug 30 07:35	1°♂15'05	
conjunction	2335 Sep 14 16:38	21°♂09'31	1°00'24		2340 Oct 19 10:22	0°♂	
minimum elong	2335 Sep 14 17:34	21°♂11'00	1°00'24	retrograde	2340 Dec 19 03:10	17°♂52'49	
	2335 Sep 28 12:03	0°♂		min. Earth dist.	2341 Jan 25 09:29	9°♂06'12	0.65272 AU
morning rise	2335 Oct 28 23:01	19°♂41'13		opposition	2341 Jan 28 07:43	7°♂55'52	4°29'17
	2335 Nov 13 17:26	0°♂		greatest brilliancy	2341 Jan 27 16:01	8°♂11'35	-1.3m
	2335 Dec 28 18:42	0°♂			2341 Feb 21 22:36	30°♂	
desc. node	2336 Jan 25 08:56	18°♂47'00		direct	2341 Mar 08 16:34	28°♂36'09	
	2336 Feb 10 15:19	0°♂			2341 Mar 24 07:59	0°♂	
	2336 Mar 24 11:46	0°≈			2341 Jun 08 15:19	0°♂	
	2336 May 05 19:49	0°♂			2341 Jul 31 09:29	0°♂	
	2336 Jun 18 00:25	0°♀		desc. node	2341 Sep 16 05:06	29°♂38'30	
	2336 Aug 06 04:59	0°♂			2341 Sep 16 18:07	0°♂	
retrograde	2336 Sep 26 01:32	15°♂13'33			2341 Oct 30 14:22	0°♂	
min. Earth dist.	2336 Oct 23 03:07	10°♂14'18	0.43407 AU	evening set	2341 Nov 28 17:11	21°♂02'43	
greatest brilliancy	2336 Oct 30 11:48	7°♂47'32	-2.5m		2341 Dec 10 18:30	0°♂	
opposition	2336 Oct 31 03:05	7°♂34'45	-1°-31'00	max. Earth dist.	2341 Dec 18 21:22	6°♂06'16	2.40344 AU
asc. node	2336 Nov 25 08:23	1°♂38'00			2342 Jan 19 01:21	0°≈	
direct	2336 Dec 01 22:32	1°♂20'26					
	2337 Feb 22 04:15	0°♂		conjunction	2342 Jan 26 08:30	5°≈40'54	-1°-2'-30
	2337 Apr 16 00:26	0°♂		minimum elong	2342 Jan 26 07:10	5°≈38'17	1°02'30
	2337 Jun 04 23:50	0°♂			2342 Feb 26 07:22	0°♂	
	2337 Jul 23 18:58	0°♂		morning rise	2342 Apr 04 18:31	29°♂30'01	
evening set	2337 Sep 04 22:21	27°♂10'54			2342 Apr 05 09:50	0°♀	
	2337 Sep 09 08:02	0°♂			2342 May 14 06:06	0°♂	
max. Earth dist.	2337 Sep 30 20:15	13°♂54'31	2.62746 AU		2342 Jun 23 16:26	0°♂	
				asc. node	2342 Jul 18 06:04	17°♂27'19	
conjunction	2337 Oct 20 16:50	26°♂58'30	0°29'12		2342 Aug 05 12:05	0°♂	
minimum elong	2337 Oct 20 17:45	27°♂00'02	0°29'11		2342 Sep 20 19:28	0°♂	

	2342 Nov 12 22:12	0°♈			2348 Mar 12 22:51	0°♏		
retrograde	2343 Jan 22 13:56	21°♈40'14			2348 Apr 23 16:47	0°♐		
opposition	2343 Mar 03 13:21	12°♈05'40	4°16'37	evening set	2348 Jun 03 12:26	28°♐06'16		
greatest brilliancy	2343 Mar 03 17:04	12°♈01'59	-1.2m		2348 Jun 06 07:56	0°♑		
min. Earth dist.	2343 Mar 04 12:30	11°♈42'40	0.67750 AU		2348 Jul 21 17:19	0°♒		
direct	2343 Apr 13 15:32	2°♈11'27						
	2343 Jul 06 10:48	0°♊		conjunction	2348 Jul 24 10:27	1°♒45'48	1°03'55	
desc. node	2343 Aug 04 03:28	16°♊07'25		minimum elong	2348 Jul 24 09:30	1°♒44'16	1°03'55	
	2343 Aug 26 18:23	0°♋		max. Earth dist.	2348 Aug 06 08:20	10°♒07'00	2.64690 AU	
	2343 Oct 10 17:04	0°♌			2348 Sep 06 09:50	0°♍		
	2343 Nov 21 02:15	0°♍		morning rise	2348 Sep 09 09:00	1°♍53'07		
	2343 Dec 30 06:54	0°♎			2348 Oct 23 21:08	0°♏		
evening set	2344 Jan 31 06:01	25°♎08'03			2348 Dec 10 22:19	0°♐		
	2344 Feb 06 09:41	0°♑			2349 Jan 29 01:40	0°♒		
	2344 Mar 15 10:49	0°♓			2349 Mar 22 14:23	0°♑		
				desc. node	2349 Mar 26 00:38	1°♑48'40		
conjunction	2344 Apr 08 13:39	18°♓43'12	0°-35'-45	retrograde	2349 Jun 14 17:37	28°♑56'57		
minimum elong	2344 Apr 08 16:33	18°♓48'45	0°35'44	opposition	2349 Jul 16 00:12	23°♑29'35	-5°-39'-40	
	2344 Apr 23 08:11	0°♈		greatest brilliancy	2349 Jul 17 15:37	23°♑00'41	-2.6m	
max. Earth dist.	2344 May 29 21:39	27°♈09'20	2.43459 AU	min. Earth dist.	2349 Jul 22 08:27	21°♑38'38	0.40478 AU	
	2344 Jun 02 19:49	0°♐		direct	2349 Aug 18 05:48	17°♑10'53		
asc. node	2344 Jun 04 05:39	1°♐01'08			2349 Oct 03 17:17	0°♒		
morning rise	2344 Jun 13 13:08	7°♐42'16			2349 Nov 23 06:31	0°♑		
	2344 Jul 15 10:24	0°♑			2350 Jan 05 23:26	0°♓		
	2344 Aug 29 12:54	0°♒		asc. node	2350 Jan 25 02:11	13°♓22'59		
	2344 Oct 16 16:50	0°♓			2350 Feb 17 21:51	0°♈		
	2344 Dec 09 09:57	0°♊			2350 Apr 02 16:13	0°♐		
retrograde	2345 Feb 27 00:34	25°♊25'50			2350 May 17 18:42	0°♑		
opposition	2345 Apr 06 15:58	16°♊36'31	2°45'40		2350 Jul 03 03:07	0°♒		
greatest brilliancy	2345 Apr 07 07:52	16°♊21'06	-1.4m	evening set	2350 Jul 16 01:31	8°♒16'18		
min. Earth dist.	2345 Apr 11 10:50	14°♊45'19	0.63608 AU		2350 Aug 19 04:40	0°♓		
direct	2345 May 18 00:11	6°♊36'34		max. Earth dist.	2350 Aug 30 01:22	6°♓54'22	2.67656 AU	
desc. node	2345 Jun 21 03:11	12°♊55'16						
	2345 Jul 29 11:40	0°♋		conjunction	2350 Aug 31 14:44	7°♓53'48	1°06'27	
	2345 Sep 17 02:50	0°♌		minimum elong	2350 Aug 31 15:18	7°♓54'41	1°06'28	
	2345 Oct 29 20:44	0°♍			2350 Oct 05 06:37	0°♎		
	2345 Dec 08 13:11	0°♎		morning rise	2350 Oct 15 00:36	6°♎14'52		
	2346 Jan 15 22:21	0°♑			2350 Nov 20 19:20	0°♐		
	2346 Feb 23 06:08	0°♓			2351 Jan 05 12:40	0°♒		
evening set	2346 Apr 03 12:08	0°♈		desc. node	2351 Feb 10 23:58	24°♒17'37		
	2346 Apr 10 19:49	5°♈28'16			2351 Feb 19 12:11	0°♑		
asc. node	2346 Apr 22 03:52	13°♈51'32			2351 Apr 05 01:27	0°♒		
	2346 May 14 09:31	0°♐			2351 May 20 03:59	0°♑		
					2351 Jul 09 00:07	0°♓		
conjunction	2346 Jun 09 17:14	18°♐34'31	0°29'34	retrograde	2351 Sep 02 11:36	17°♓16'30		
minimum elong	2346 Jun 09 15:40	18°♐31'48	0°29'32	min. Earth dist.	2351 Sep 29 01:18	12°♓48'57	0.39171 AU	
	2346 Jun 26 07:21	0°♑		opposition	2351 Oct 04 23:16	11°♓04'53	-4°-18'-38	
max. Earth dist.	2346 Jul 11 04:23	10°♑04'13	2.56336 AU	greatest brilliancy	2351 Oct 03 21:55	11°♓23'31	-2.8m	
morning rise	2346 Aug 02 07:17	24°♑46'12		direct	2351 Nov 03 22:49	5°♓45'28		
	2346 Aug 10 06:56	0°♒		asc. node	2351 Dec 13 01:38	14°♓21'26		
	2346 Sep 26 04:28	0°♓			2352 Jan 15 06:00	0°♈		
	2346 Nov 14 02:29	0°♊			2352 Mar 07 07:54	0°♐		
	2347 Jan 05 13:01	0°♋			2352 Apr 25 07:18	0°♑		
	2347 Mar 14 15:02	0°♌			2352 Jun 12 17:45	0°♒		
retrograde	2347 Apr 12 13:06	4°♌27'23			2352 Jul 30 20:00	0°♓		
desc. node	2347 May 09 02:14	0°♌07'00		evening set	2352 Aug 21 14:27	13°♓43'24		
	2347 May 09 11:11	30°♌			2352 Sep 16 03:10	0°♊		
opposition	2347 May 18 10:46	26°♌55'34	0°-26'-2	max. Earth dist.	2352 Sep 21 06:01	3°♊17'34	2.65161 AU	
greatest brilliancy	2347 May 18 15:36	26°♌51'13	-1.9m					
min. Earth dist.	2347 May 26 11:21	24°♌02'30	0.53325 AU	conjunction	2352 Oct 06 00:26	12°♊51'10	0°43'45	
direct	2347 Jun 26 20:40	17°♌45'21		minimum elong	2352 Oct 06 01:32	12°♊52'58	0°43'45	
	2347 Aug 12 18:28	0°♍			2352 Nov 01 02:44	0°♋		
	2347 Oct 03 11:59	0°♎		morning rise	2352 Nov 20 01:34	12°♋40'41		
	2347 Nov 14 18:46	0°♏			2352 Dec 15 11:31	0°♌		
	2347 Dec 24 11:36	0°♑		desc. node	2352 Dec 28 23:02	9°♌20'26		
	2348 Feb 01 19:04	0°♓			2353 Jan 27 05:37	0°♈		
asc. node	2348 Mar 09 02:30	27°♓10'11			2353 Mar 09 14:05	0°♉		

	2353 Apr 18 23:47	0° H		min. Earth dist.	2358 Feb 17 20:19	29° Ω 25'10	0.67582 AU
	2353 May 29 05:56	0° Y		direct	2358 Mar 31 00:02	19° Ω 27'48	
	2353 Jul 09 22:02	0° B			2358 May 17 01:00	0° M	
	2353 Aug 26 02:42	0° II			2358 Jul 16 21:03	0° Ω	
retrograde	2353 Oct 27 00:37	20° II 42'18		desc. node	2358 Aug 20 19:54	20° Ω 56'37	
asc. node	2353 Oct 30 00:05	20° II 38'22			2358 Sep 04 01:13	0° M	
min. Earth dist.	2353 Nov 26 07:03	14° II 24'10	0.51535 AU		2358 Oct 18 09:59	0° A	
greatest brilliancy	2353 Dec 03 05:03	11° II 48'11	-2.0m		2358 Nov 28 15:45	0° B	
opposition	2353 Dec 04 00:14	11° II 30'07	1°45'38	evening set	2359 Jan 04 04:20	27° B 55'44	
direct	2354 Jan 07 14:53	3° II 55'59			2359 Jan 06 20:10	0° \approx	
	2354 Mar 28 04:50	0° B			2359 Feb 13 23:10	0° H	
	2354 May 21 23:09	0° Ω					
	2354 Jul 11 12:27	0° M		conjunction	2359 Mar 11 11:36	20° H 10'11	0°-57'-3
	2354 Aug 28 17:52	0° Ω		minimum elong	2359 Mar 11 14:25	20° H 15'44	0°57'03
evening set	2354 Sep 28 03:15	19° Ω 38'46			2359 Mar 23 23:47	0° Y	
	2354 Oct 13 18:23	0° M		max. Earth dist.	2359 Apr 24 16:22	24° Y 33'46	2.38380 AU
max. Earth dist.	2354 Oct 17 18:59	2° M 41'46	2.57445 AU		2359 May 01 19:31	0° B	
				morning rise	2359 May 20 17:59	14° B 14'12	
conjunction	2354 Nov 14 12:12	21° M 35'55	0°00'50		2359 Jun 11 05:08	0° II	
minimum elong	2354 Nov 14 12:14	21° M 35'57	0°00'50	asc. node	2359 Jun 21 20:36	7° II 39'32	
behind sun begin	2354 Nov 13 15:58	21° M 00'53			2359 Jul 23 19:23	0° B	
behind sun end	2354 Nov 15 08:30	22° M 11'04			2359 Sep 07 03:51	0° Ω	
desc. node	2354 Nov 15 21:36	22° M 33'47			2359 Oct 26 10:04	0° M	
	2354 Nov 26 13:12	0° A			2359 Dec 24 12:06	0° Ω	
morning rise	2355 Jan 03 10:14	27° A 10'15		retrograde	2360 Feb 13 07:14	12° Ω 12'24	
	2355 Jan 07 06:49	0° B		opposition	2360 Mar 23 14:48	3° Ω 02'29	3°30'33
	2355 Feb 16 08:53	0° \approx		greatest brilliancy	2360 Mar 24 03:44	2° Ω 49'47	-1.3m
	2355 Mar 27 09:51	0° H		min. Earth dist.	2360 Mar 26 22:12	1° Ω 44'38	0.66024 AU
	2355 May 05 04:07	0° Y			2360 Mar 31 11:09	30° R M	
	2355 Jun 13 14:57	0° B		direct	2360 May 04 01:40	23° M 00'40	
	2355 Jul 25 01:49	0° II			2360 Jun 09 15:56	0° Ω	
	2355 Sep 08 21:59	0° B		desc. node	2360 Jul 07 18:34	11° Ω 50'41	
asc. node	2355 Sep 16 23:41	4° B 46'23			2360 Aug 10 07:13	0° M	
	2355 Nov 10 23:24	0° Ω			2360 Sep 26 05:35	0° A	
retrograde	2355 Dec 06 06:19	3° Ω 53'17			2360 Nov 07 05:45	0° B	
	2355 Dec 30 00:00	30° R B			2360 Dec 16 15:22	0° \approx	
min. Earth dist.	2356 Jan 10 18:51	25° B 41'49	0.62532 AU		2361 Jan 23 20:26	0° H	
greatest brilliancy	2356 Jan 14 07:03	24° B 17'52	-1.5m		2361 Mar 03 00:07	0° Y	
opposition	2356 Jan 15 05:10	23° B 55'47	4°10'29	evening set	2361 Mar 15 13:05	9° Y 44'36	
direct	2356 Feb 22 13:20	14° B 57'17			2361 Apr 11 01:07	0° B	
	2356 Apr 20 10:18	0° Ω		asc. node	2361 May 08 20:12	20° B 39'34	
	2356 Jun 18 13:29	0° M					
	2356 Aug 08 06:51	0° Ω		conjunction	2361 May 18 23:17	28° B 01'27	0°06'33
	2356 Sep 24 01:13	0° M		minimum elong	2361 May 18 22:49	28° B 00'36	0°06'33
desc. node	2356 Oct 02 20:38	5° M 53'35		behind sun begin	2361 May 17 23:09	27° B 17'51	
	2356 Nov 06 18:34	0° A		behind sun end	2361 May 19 22:28	28° B 43'17	
evening set	2356 Nov 08 22:54	1° A 32'42			2361 May 21 17:01	0° II	
max. Earth dist.	2356 Nov 23 15:48	12° A 05'11	2.45400 AU	max. Earth dist.	2361 Jun 28 00:54	26° II 17'51	2.51692 AU
	2356 Dec 18 00:43	0° B			2361 Jul 03 10:16	0° B	
				morning rise	2361 Jul 15 19:23	8° B 24'59	
conjunction	2357 Jan 02 01:41	11° B 18'31	0°-49'-47		2361 Aug 17 08:34	0° Ω	
minimum elong	2357 Jan 01 23:37	11° B 14'36	0°49'47		2361 Oct 03 13:05	0° M	
	2357 Jan 26 11:18	0° \approx			2361 Nov 22 14:37	0° Ω	
morning rise	2357 Mar 05 14:16	29° \approx 46'49			2362 Jan 18 09:56	0° M	
	2357 Mar 05 20:59	0° H		retrograde	2362 Mar 24 17:05	18° M 23'21	
greatest brilliancy	2357 Mar 15 22:35	7° H 54'59	1.2m	opposition	2362 Apr 30 21:36	10° M 15'56	1°03'13
	2357 Apr 13 02:07	0° Y		greatest brilliancy	2362 May 01 07:50	10° M 06'21	-1.7m
	2357 May 21 23:56	0° B		min. Earth dist.	2362 May 07 19:50	7° M 40'39	0.57998 AU
	2357 Jul 01 12:16	0° II		desc. node	2362 May 25 17:15	2° M 15'31	
asc. node	2357 Aug 03 22:45	23° II 27'43		direct	2362 Jun 10 10:17	0° M 36'01	
	2357 Aug 13 15:06	0° B			2362 Aug 29 23:02	0° A	
	2357 Sep 30 01:50	0° Ω			2362 Oct 14 17:05	0° B	
	2357 Nov 28 15:27	0° M			2362 Nov 24 11:24	0° \approx	
retrograde	2358 Jan 09 04:50	8° M 58'02			2363 Jan 02 10:33	0° H	
	2358 Feb 16 09:25	30° R Ω			2363 Feb 10 05:21	0° Y	
opposition	2358 Feb 18 09:47	29° Ω 11'43	4°30'51		2363 Mar 21 21:49	0° B	
greatest brilliancy	2358 Feb 18 05:58	29° Ω 15'32	-1.2m	asc. node	2363 Mar 26 20:04	3° B 38'56	

	2363 May 02 05:19	0°♂			2368 Mar 18 10:36	0°♂	
evening set	2363 May 16 02:27	9°♂46'36			2368 Apr 28 21:48	0°♂	
	2363 Jun 14 11:40	0°♂			2368 Jun 09 15:04	0°♂	
					2368 Jul 24 07:51	0°♂	
conjunction	2363 Jul 08 22:49	16°♂23'50	0°54'47	retrograde	2368 Oct 08 01:22	29°♂24'44	
minimum elong	2363 Jul 08 21:19	16°♂21'21	0°54'46	min. Earth dist.	2368 Nov 05 04:29	23°♂57'57	0.46257 AU
max. Earth dist.	2363 Jul 28 15:12	29°♂20'42	2.62026 AU	opposition	2368 Nov 13 09:07	21°♂04'56	0°-7'-58
	2363 Jul 29 15:18	0°♂		greatest brilliancy	2369 May 12 07:39	19°♂07'54	-4.3m
morning rise	2363 Aug 26 21:51	18°♂16'16		asc. node	2368 Nov 15 17:05	20°♂16'04	
	2363 Sep 14 07:27	0°♂		direct	2368 Dec 16 04:37	14°♂19'46	
	2363 Nov 01 03:49	0°♂			2369 Feb 11 03:04	0°♂	
	2363 Dec 20 07:52	0°♂			2369 Apr 09 08:36	0°♂	
	2364 Feb 10 10:56	0°♂			2369 May 30 14:15	0°♂	
desc. node	2364 Apr 11 16:10	28°♂20'08			2369 Jul 18 22:05	0°♂	
	2364 Apr 16 21:44	0°♂			2369 Sep 04 16:40	0°♂	
retrograde	2364 May 17 12:09	5°♂00'41		evening set	2369 Sep 13 04:58	5°♂27'50	
	2364 Jun 15 12:57	30°♂41'51		max. Earth dist.	2369 Oct 06 16:58	20°♂45'38	2.61074 AU
opposition	2364 Jun 19 15:27	28°♂41'51	-3°-31'-26		2369 Oct 20 15:41	0°♂	
greatest brilliancy	2364 Jun 21 02:56	28°♂13'01	-2.3m				
min. Earth dist.	2364 Jun 27 22:26	26°♂00'51	0.45195 AU	conjunction	2369 Oct 29 09:17	5°♂51'07	0°19'30
direct	2364 Jul 25 22:41	21°♂00'05		minimum elong	2369 Oct 29 09:58	5°♂52'16	0°19'29
	2364 Sep 02 04:50	0°♂		desc. node	2369 Dec 02 13:59	29°♂16'39	
	2364 Oct 24 23:19	0°♂			2369 Dec 03 14:50	0°♂	
	2364 Dec 06 17:41	0°♂		morning rise	2369 Dec 15 17:19	8°♂30'04	
	2365 Jan 16 18:18	0°♂			2370 Jan 14 16:21	0°♂	
asc. node	2365 Feb 10 18:28	18°♂12'36			2370 Feb 24 03:58	0°♂	
	2365 Feb 27 03:51	0°♂			2370 Apr 04 14:28	0°♂	
	2365 Apr 10 21:07	0°♂			2370 May 13 18:06	0°♂	
	2365 May 25 06:08	0°♂			2370 Jun 22 16:27	0°♂	
evening set	2365 Jun 30 09:40	23°♂42'19			2370 Aug 04 02:55	0°♂	
	2365 Jul 10 03:10	0°♂			2370 Sep 22 12:34	0°♂	
				asc. node	2370 Oct 03 15:16	5°♂30'15	
conjunction	2365 Aug 17 05:19	24°♂25'17	1°08'46	retrograde	2370 Nov 21 15:04	18°♂43'25	
minimum elong	2365 Aug 17 05:21	24°♂25'21	1°08'46	min. Earth dist.	2370 Dec 25 05:06	11°♂12'15	0.58854 AU
max. Earth dist.	2365 Aug 20 23:28	26°♂49'01	2.67139 AU	greatest brilliancy	2370 Dec 30 00:13	9°♂18'52	-1.6m
	2365 Aug 25 23:21	0°♂		opposition	2370 Dec 31 02:08	8°♂53'20	3°33'55
morning rise	2365 Oct 01 05:57	23°♂04'39		direct	2371 Feb 06 04:02	0°♂21'53	
	2365 Oct 12 02:58	0°♂			2371 May 05 03:20	0°♂	
	2365 Nov 28 02:07	0°♂			2371 Jun 28 07:22	0°♂	
	2366 Jan 13 18:07	0°♂			2371 Aug 16 18:37	0°♂	
desc. node	2366 Feb 27 15:12	28°♂50'18			2371 Oct 02 04:04	0°♂	
	2366 Mar 01 10:48	0°♂		desc. node	2371 Oct 20 12:29	12°♂23'04	
	2366 Apr 18 04:06	0°♂		evening set	2371 Oct 23 04:25	14°♂12'26	
	2366 Jun 10 07:10	0°♂		max. Earth dist.	2371 Nov 07 08:12	24°♂42'01	2.50517 AU
retrograde	2366 Aug 04 02:09	15°♂50'50			2371 Nov 14 21:11	0°♂	
min. Earth dist.	2366 Sep 02 07:47	11°♂03'01	0.37239 AU				
opposition	2366 Sep 03 10:27	10°♂45'13	-6°-30'-52	conjunction	2371 Dec 12 20:33	20°♂06'06	0°-31'-2
greatest brilliancy	2366 Sep 03 06:55	10°♂47'35	-2.9m	minimum elong	2371 Dec 12 19:08	20°♂03'32	0°31'01
direct	2366 Oct 03 01:10	5°♂50'59			2371 Dec 26 07:08	0°♂	
	2366 Dec 12 01:20	0°♂			2372 Feb 03 22:55	0°♂	
asc. node	2366 Dec 29 17:17	10°♂10'14		morning rise	2372 Feb 07 08:12	2°♂36'30	
	2367 Jan 30 21:44	0°♂			2372 Mar 13 13:22	0°♂	
	2367 Mar 18 20:17	0°♂			2372 Apr 20 22:07	0°♂	
	2367 May 04 18:05	0°♂			2372 May 29 22:42	0°♂	
	2367 Jun 21 03:42	0°♂			2372 Jul 09 15:18	0°♂	
	2367 Aug 07 17:51	0°♂		asc. node	2372 Aug 20 14:27	28°♂52'50	
evening set	2367 Aug 08 06:01	0°♂19'14			2372 Aug 22 07:23	0°♂	
max. Earth dist.	2367 Sep 13 04:08	23°♂07'50	2.66772 AU		2372 Oct 10 21:39	0°♂	
				retrograde	2372 Dec 26 21:06	26°♂01'26	
conjunction	2367 Sep 22 18:21	29°♂16'26	0°55'14	min. Earth dist.	2373 Feb 03 01:22	16°♂57'10	0.66383 AU
minimum elong	2367 Sep 22 19:25	29°♂18'07	0°55'14	opposition	2373 Feb 05 03:29	16°♂07'00	4°33'38
	2367 Sep 23 21:30	0°♂		greatest brilliancy	2373 Feb 04 15:54	16°♂18'36	-1.3m
morning rise	2367 Nov 06 04:10	28°♂07'25		direct	2373 Mar 17 00:37	6°♂37'22	
	2367 Nov 09 00:30	0°♂			2373 Jun 01 02:42	0°♂	
	2367 Dec 23 19:17	0°♂			2373 Jul 25 20:50	0°♂	
desc. node	2368 Jan 15 14:30	15°♂38'29		desc. node	2373 Sep 06 10:57	26°♂30'50	
	2368 Feb 05 05:17	0°♂			2373 Sep 11 19:13	0°♂	

	2373 Oct 25 19:57	0°♊			2378 Aug 05 14:05	0°♏	
	2373 Dec 06 01:05	0°♌		morning rise	2378 Aug 11 13:55	3°♏54'16	
evening set	2373 Dec 11 00:27	3°♌43'56			2378 Sep 21 08:22	0°♍	
max. Earth dist.	2374 Jan 12 22:33	28°♌56'11	2.38022 AU		2378 Nov 08 18:30	0°♎	
	2374 Jan 14 07:24	0°♍			2378 Dec 29 15:55	0°♏	
					2379 Feb 26 00:35	0°♊	
conjunction	2374 Feb 10 11:59	21°♍18'22	-1°-4'-49	retrograde	2379 Apr 24 12:40	15°♊01'25	
minimum elong	2374 Feb 10 11:59	21°♍18'23	1°04'50	desc. node	2379 Apr 29 07:09	14°♊53'01	
	2374 Feb 21 12:22	0°♋		opposition	2379 May 29 13:28	7°♊53'20	-1°-27'-47
	2374 Mar 31 13:57	0°♌		greatest brilliancy	2379 May 30 05:53	7°♊38'58	-2.1m
morning rise	2374 Apr 21 22:48	16°♌37'56		min. Earth dist.	2379 Jun 06 23:15	4°♊57'26	0.50479 AU
	2374 May 09 09:22	0°♍			2379 Jun 25 21:32	30°♋♏	
	2374 Jun 18 18:09	0°♎		direct	2379 Jul 07 02:28	29°♏08'11	
asc. node	2374 Jul 08 14:26	14°♎11'17			2379 Jul 18 11:10	0°♊	
	2374 Jul 31 09:58	0°♏			2379 Sep 24 23:51	0°♌	
	2374 Sep 15 05:11	0°♏			2379 Nov 08 01:41	0°♍	
	2374 Nov 05 08:32	0°♍			2379 Dec 18 11:52	0°♋	
retrograde	2375 Jan 30 08:10	29°♍24'12			2380 Jan 27 05:56	0°♌	
opposition	2375 Mar 11 03:34	19°♍57'23	4°02'56	asc. node	2380 Feb 28 11:23	23°♌57'26	
greatest brilliancy	2375 Mar 11 11:00	19°♍50'01	-1.2m		2380 Mar 07 17:36	0°♍	
min. Earth dist.	2375 Mar 12 22:53	19°♍14'31	0.67418 AU		2380 Apr 18 17:36	0°♎	
direct	2375 Apr 21 10:55	9°♍59'06			2380 Jun 01 13:27	0°♏	
	2375 Jun 28 10:35	0°♎		evening set	2380 Jun 13 16:00	8°♏04'51	
desc. node	2375 Jul 25 09:52	14°♎12'53			2380 Jul 17 01:39	0°♏	
	2375 Aug 21 00:43	0°♏					
	2375 Oct 05 13:40	0°♊		conjunction	2380 Aug 02 07:08	10°♏29'26	1°06'58
	2375 Nov 16 03:48	0°♌		minimum elong	2380 Aug 02 06:33	10°♏28'30	1°06'58
	2375 Dec 25 10:02	0°♍		max. Earth dist.	2380 Aug 11 20:17	16°♏37'36	2.65790 AU
	2376 Feb 01 13:17	0°♋			2380 Sep 01 18:37	0°♍	
evening set	2376 Feb 16 06:45	11°♋38'30		morning rise	2380 Sep 17 09:49	9°♍56'17	
greatest brilliancy	2376 Mar 04 11:52	25°♋12'04	1.2m		2380 Oct 19 02:17	0°♎	
	2376 Mar 10 14:53	0°♌			2380 Dec 05 16:16	0°♏	
	2376 Apr 18 12:52	0°♍			2381 Jan 22 17:12	0°♊	
					2381 Mar 13 07:51	0°♌	
conjunction	2376 Apr 24 00:42	4°♍08'57	0°-20'-26	desc. node	2381 Mar 16 07:01	1°♌43'53	
minimum elong	2376 Apr 24 02:25	4°♍12'11	0°20'26		2381 May 08 07:42	0°♍	
asc. node	2376 May 25 12:53	27°♍27'34		retrograde	2381 Jul 02 14:29	15°♍02'47	
	2376 May 29 01:03	0°♎		opposition	2381 Aug 01 23:46	9°♍58'04	-6°-32'-40
max. Earth dist.	2376 Jun 11 06:58	9°♎29'54	2.46488 AU	greatest brilliancy	2381 Aug 03 05:43	9°♍37'33	-2.8m
morning rise	2376 Jun 26 00:30	19°♎52'54		min. Earth dist.	2381 Aug 06 05:31	8°♍48'35	0.38536 AU
	2376 Jul 10 15:29	0°♏		direct	2381 Sep 02 09:23	4°♍24'23	
	2376 Aug 24 14:40	0°♏			2381 Nov 12 00:32	0°♋	
	2376 Oct 11 06:58	0°♍			2381 Dec 29 03:08	0°♌	
	2376 Dec 02 04:59	0°♎		asc. node	2382 Jan 15 09:17	11°♌36'22	
	2377 Feb 09 08:56	0°♏			2382 Feb 11 12:23	0°♍	
retrograde	2377 Mar 07 21:58	3°♏47'06			2382 Mar 28 02:15	0°♎	
	2377 Apr 01 10:27	30°♋♎			2382 May 12 16:55	0°♏	
opposition	2377 Apr 15 02:51	25°♎11'03	2°12'41		2382 Jun 28 08:33	0°♏	
greatest brilliancy	2377 Apr 15 18:24	24°♎56'08	-1.5m	evening set	2382 Jul 24 15:27	16°♏43'09	
min. Earth dist.	2377 Apr 20 16:52	23°♎02'42	0.61874 AU		2382 Aug 14 13:45	0°♍	
direct	2377 May 26 07:00	15°♎15'24		max. Earth dist.	2382 Sep 04 06:36	13°♍09'07	2.67582 AU
desc. node	2377 Jun 11 08:46	16°♎48'34					
	2377 Jul 19 19:20	0°♏		conjunction	2382 Sep 08 16:30	15°♍57'41	1°03'21
	2377 Sep 10 18:12	0°♊		minimum elong	2382 Sep 08 17:17	15°♍58'56	1°03'21
	2377 Oct 24 07:09	0°♌			2382 Sep 30 15:58	0°♎	
	2377 Dec 03 07:03	0°♍		morning rise	2382 Oct 22 23:03	14°♎20'58	
	2378 Jan 10 19:59	0°♋			2382 Nov 16 00:51	0°♏	
	2378 Feb 18 06:32	0°♌			2382 Dec 31 09:27	0°♊	
	2378 Mar 29 14:59	0°♍		desc. node	2383 Feb 01 06:25	21°♊30'15	
asc. node	2378 Apr 12 11:34	10°♍17'54			2383 Feb 13 17:28	0°♌	
evening set	2378 Apr 24 08:24	18°♍59'33			2383 Mar 29 05:58	0°♍	
	2378 May 09 14:35	0°♎			2383 May 11 13:14	0°♋	
					2383 Jun 25 13:28	0°♌	
conjunction	2378 Jun 20 21:15	29°♎30'56	0°40'23		2383 Aug 23 09:24	0°♍	
minimum elong	2378 Jun 20 19:31	29°♎27'59	0°40'22	retrograde	2383 Sep 16 23:10	4°♍03'10	
	2378 Jun 21 14:18	0°♏			2383 Oct 11 09:52	30°♋♌	
max. Earth dist.	2378 Jul 17 23:22	17°♏44'27	2.58584 AU	min. Earth dist.	2383 Oct 13 12:30	29°♌21'55	0.41304 AU

opposition	2383 Oct 20 21:29	27° Υ 02'29	-2°-41'-43	desc. node	2388 Sep 23 02:25	2° \mathbb{M} 34'09	
greatest brilliancy	2383 Oct 19 22:54	27° Υ 20'24	-2.6m		2388 Nov 02 01:52	0° \mathcal{Z}	
direct	2383 Nov 20 20:56	21° Υ 13'52		evening set	2388 Nov 19 20:30	12° \mathcal{Z} 43'23	
asc. node	2383 Dec 03 08:01	22° Υ 13'50		max. Earth dist.	2388 Dec 06 03:04	24° \mathcal{Z} 38'35	2.42561 AU
	2383 Dec 30 16:08	0° \mathcal{B}			2388 Dec 13 08:04	0° \mathcal{Z}	
	2384 Feb 28 12:06	0° \mathbb{I}					
	2384 Apr 19 08:29	0° \mathcal{S}		conjunction	2389 Jan 15 08:09	25° \mathcal{Z} 03'55	0°-58'-7
	2384 Jun 07 13:58	0° \mathcal{Q}		minimum elong	2389 Jan 15 06:14	25° \mathcal{Z} 00'15	0°58'07
	2384 Jul 26 01:25	0° \mathcal{M}			2389 Jan 21 17:21	0° \approx	
evening set	2384 Aug 29 19:08	21° \mathcal{M} 52'47			2389 Mar 01 01:06	0° \mathcal{H}	
	2384 Sep 11 12:22	0° \mathcal{A}		morning rise	2389 Mar 22 08:05	16° \mathcal{H} 46'27	
max. Earth dist.	2384 Sep 26 18:32	9° \mathcal{A} 50'18	2.63928 AU		2389 Apr 08 04:23	0° Υ	
					2389 May 17 00:30	0° \mathcal{B}	
conjunction	2384 Oct 14 07:59	21° \mathcal{A} 18'07	0°35'39		2389 Jun 26 10:09	0° \mathbb{I}	
minimum elong	2384 Oct 14 09:01	21° \mathcal{A} 19'49	0°35'39	asc. node	2389 Jul 25 05:36	20° \mathbb{I} 23'52	
	2384 Oct 27 11:43	0° \mathbb{M}			2389 Aug 08 06:43	0° \mathcal{S}	
morning rise	2384 Nov 28 23:39	21° \mathbb{M} 55'24			2389 Sep 23 21:21	0° \mathcal{Q}	
	2384 Dec 10 17:13	0° \mathcal{Z}			2389 Nov 17 17:36	0° \mathcal{M}	
desc. node	2384 Dec 19 05:01	5° \mathcal{Z} 54'09		retrograde	2390 Jan 16 20:22	16° \mathcal{M} 44'40	
	2385 Jan 22 05:14	0° \mathcal{Z}		opposition	2390 Feb 25 23:22	7° \mathcal{M} 04'27	4°23'49
	2385 Mar 04 05:53	0° \approx		greatest brilliancy	2390 Feb 25 23:48	7° \mathcal{M} 04'00	-1.2m
	2385 Apr 13 06:08	0° \mathcal{H}		min. Earth dist.	2390 Feb 26 06:15	6° \mathcal{M} 57'35	0.67803 AU
	2385 May 23 00:31	0° Υ			2390 Mar 18 01:58	30° \mathcal{R} \mathcal{Q}	
	2385 Jul 02 19:46	0° \mathcal{B}		direct	2390 Apr 07 21:21	27° \mathcal{Q} 14'18	
	2385 Aug 16 08:29	0° \mathbb{I}			2390 Apr 30 06:50	0° \mathcal{M}	
asc. node	2385 Oct 20 08:22	29° \mathbb{I} 58'29			2390 Jul 10 07:10	0° \mathcal{A}	
	2385 Oct 20 11:13	0° \mathcal{S}		desc. node	2390 Aug 11 01:03	18° \mathcal{A} 22'23	
retrograde	2385 Nov 05 18:50	1° \mathcal{S} 48'47			2390 Aug 29 16:30	0° \mathbb{M}	
	2385 Nov 21 13:35	30° \mathcal{R} \mathbb{I}			2390 Oct 13 10:36	0° \mathcal{Z}	
min. Earth dist.	2385 Dec 07 05:47	25° \mathbb{I} 03'57	0.54297 AU		2390 Nov 23 19:34	0° \mathcal{Z}	
greatest brilliancy	2385 Dec 13 09:41	22° \mathbb{I} 41'58	-1.9m		2391 Jan 02 00:59	0° \approx	
opposition	2385 Dec 14 10:06	22° \mathbb{I} 18'30	2°34'01	evening set	2391 Jan 19 02:41	13° \approx 22'26	
direct	2386 Jan 18 23:36	14° \mathbb{I} 21'45			2391 Feb 09 04:02	0° \mathcal{H}	
	2386 Mar 18 04:28	0° \mathcal{S}			2391 Mar 19 04:35	0° Υ	
	2386 May 15 17:55	0° \mathcal{Q}					
	2386 Jul 06 08:04	0° \mathcal{M}		conjunction	2391 Mar 28 00:07	6° Υ 53'16	0°-46'-13
	2386 Aug 23 23:17	0° \mathcal{A}		minimum elong	2391 Mar 28 03:26	6° Υ 59'44	0°46'12
evening set	2386 Oct 06 22:58	28° \mathcal{A} 33'11			2391 Apr 27 00:24	0° \mathcal{B}	
	2386 Oct 09 03:04	0° \mathbb{M}		max. Earth dist.	2391 May 18 11:00	16° \mathcal{B} 06'08	2.41046 AU
max. Earth dist.	2386 Oct 24 15:43	10° \mathbb{M} 27'38	2.55144 AU	morning rise	2391 Jun 04 05:04	28° \mathcal{B} 24'25	
desc. node	2386 Nov 06 03:36	19° \mathbb{M} 01'20			2391 Jun 06 09:43	0° \mathbb{I}	
	2386 Nov 21 21:39	0° \mathcal{Z}		asc. node	2391 Jun 12 05:19	4° \mathbb{I} 12'05	
					2391 Jul 18 22:32	0° \mathcal{S}	
conjunction	2386 Nov 24 06:24	1° \mathcal{Z} 39'59	0°-10'-43		2391 Sep 02 01:26	0° \mathcal{Q}	
minimum elong	2386 Nov 24 05:56	1° \mathcal{Z} 39'09	0°10'44		2391 Oct 20 13:08	0° \mathcal{M}	
behind sun begin	2386 Nov 23 13:56	1° \mathcal{Z} 10'57			2391 Dec 14 19:52	0° \mathcal{A}	
behind sun end	2386 Nov 24 21:56	2° \mathcal{Z} 07'23		retrograde	2392 Feb 21 14:02	20° \mathcal{A} 10'20	
	2387 Jan 02 12:39	0° \mathcal{Z}		opposition	2392 Mar 31 13:57	11° \mathcal{A} 11'15	3°05'51
morning rise	2387 Jan 15 02:56	9° \mathcal{Z} 20'40		greatest brilliancy	2392 Apr 01 04:50	10° \mathcal{A} 56'44	-1.3m
	2387 Feb 11 11:06	0° \approx		min. Earth dist.	2392 Apr 04 17:19	9° \mathcal{A} 34'31	0.64807 AU
	2387 Mar 22 08:01	0° \mathcal{H}		direct	2392 May 12 00:52	1° \mathcal{A} 09'41	
	2387 Apr 29 22:19	0° Υ		desc. node	2392 Jun 28 00:25	12° \mathcal{A} 13'02	
	2387 Jun 08 04:23	0° \mathcal{B}			2392 Aug 03 03:02	0° \mathbb{M}	
	2387 Jul 19 05:53	0° \mathbb{I}			2392 Sep 20 12:25	0° \mathcal{Z}	
	2387 Sep 01 23:14	0° \mathcal{S}			2392 Nov 01 23:13	0° \mathcal{Z}	
asc. node	2387 Sep 07 07:39	3° \mathcal{S} 20'08			2392 Dec 11 13:17	0° \approx	
	2387 Oct 26 12:45	0° \mathcal{Q}			2393 Jan 18 20:38	0° \mathcal{H}	
retrograde	2387 Dec 14 06:44	12° \mathcal{Q} 28'43			2393 Feb 26 02:10	0° Υ	
min. Earth dist.	2388 Jan 19 19:15	3° \mathcal{Q} 57'18	0.64167 AU	evening set	2393 Mar 30 17:24	25° Υ 05'51	
opposition	2388 Jan 23 09:42	2° \mathcal{Q} 30'54	4°23'28		2393 Apr 06 05:08	0° \mathcal{B}	
greatest brilliancy	2388 Jan 22 14:56	2° \mathcal{Q} 49'40	-1.4m	asc. node	2393 Apr 29 04:12	17° \mathcal{B} 04'52	
	2388 Jan 29 20:01	30° \mathcal{R} \mathcal{S}			2393 May 16 22:46	0° \mathbb{I}	
direct	2388 Mar 02 08:26	23° \mathcal{S} 19'59					
	2388 Apr 07 12:49	0° \mathcal{Q}		conjunction	2393 May 31 15:30	10° \mathbb{I} 28'41	0°20'22
	2388 Jun 12 04:36	0° \mathcal{M}		minimum elong	2393 May 31 14:15	10° \mathbb{I} 26'28	0°20'21
	2388 Aug 03 01:40	0° \mathcal{A}			2393 Jun 28 17:14	0° \mathcal{S}	
	2388 Sep 19 05:26	0° \mathbb{M}		max. Earth dist.	2393 Jul 05 19:31	4° \mathcal{S} 50'12	2.54348 AU

morning rise	2393 Jul 25 23:44	18° \mathfrak{S} 23'21			2398 Nov 23 03:22	0° Υ	
	2393 Aug 12 14:41	0° \mathcal{Q}		asc. node	2398 Dec 20 01:38	11° Υ 48'28	
	2393 Sep 28 13:45	0° \mathfrak{M}			2399 Jan 22 02:25	0° \mathcal{B}	
	2393 Nov 16 20:58	0° \mathfrak{A}			2399 Mar 12 08:34	0° \mathfrak{H}	
	2394 Jan 09 16:58	0° \mathfrak{M}			2399 Apr 29 06:38	0° \mathfrak{S}	
retrograde	2394 Apr 04 01:32	27° \mathfrak{M} 44'53			2399 Jun 16 04:40	0° \mathcal{Q}	
opposition	2394 May 10 14:24	19° \mathfrak{M} 56'08	0°14'26		2399 Aug 03 01:16	0° \mathfrak{M}	
greatest brilliancy	2394 Apr 29 06:49	23° \mathfrak{M} 48'09	-1.8m	evening set	2399 Aug 16 11:53	8° \mathfrak{M} 28'46	
desc. node	2394 May 15 23:41	17° \mathfrak{M} 57'12		max. Earth dist.	2399 Sep 18 12:14	29° \mathfrak{M} 29'35	2.65990 AU
min. Earth dist.	2394 May 18 04:51	17° \mathfrak{M} 09'01	0.55507 AU		2399 Sep 19 07:11	0° \mathfrak{A}	
direct	2394 Jun 19 14:50	10° \mathfrak{M} 30'20					
	2394 Aug 20 14:37	0° \mathcal{A}		conjunction	2399 Sep 30 21:18	7° \mathfrak{A} 27'47	0°48'56
	2394 Oct 08 00:58	0° \mathfrak{Z}		minimum elong	2399 Sep 30 22:24	7° \mathfrak{A} 29'35	0°48'56
	2394 Nov 18 14:00	0° \approx			2399 Nov 04 08:52	0° \mathfrak{M}	
	2394 Dec 27 21:59	0° \mathfrak{H}		morning rise	2399 Nov 14 13:48	6° \mathfrak{M} 46'32	
	2395 Feb 04 22:40	0° Υ			2399 Dec 18 22:51	0° \mathcal{A}	
	2395 Mar 16 20:10	0° \mathcal{B}		desc. node	2400 Jan 05 20:41	12° \mathcal{A} 21'17	
asc. node	2395 Mar 17 02:28	0° \mathcal{B} 11'39			2400 Jan 31 00:16	0° \mathfrak{Z}	
	2395 Apr 27 07:56	0° \mathfrak{H}			2400 Mar 12 17:57	0° \approx	
evening set	2395 May 27 10:03	20° \mathfrak{H} 55'58			2400 Apr 22 13:46	0° \mathfrak{H}	
	2395 Jun 09 17:55	0° \mathfrak{S}			2400 Jun 02 08:24	0° Υ	
					2400 Jul 14 22:17	0° \mathcal{B}	
conjunction	2395 Jul 18 12:49	25° \mathfrak{S} 47'17	1°00'42		2400 Sep 03 16:39	0° \mathfrak{H}	
minimum elong	2395 Jul 18 11:38	25° \mathfrak{S} 45'19	1°00'40	retrograde	2400 Oct 19 02:59	12° \mathfrak{H} 22'00	
	2395 Jul 24 23:34	0° \mathcal{Q}		asc. node	2400 Nov 06 00:18	10° \mathfrak{H} 01'27	
max. Earth dist.	2395 Aug 03 10:43	6° \mathcal{Q} 08'58	2.63614 AU	min. Earth dist.	2400 Nov 17 09:57	6° \mathfrak{H} 27'17	0.49186 AU
morning rise	2395 Sep 04 06:48	26° \mathcal{Q} 35'47		opposition	2400 Nov 25 11:28	3° \mathfrak{H} 30'01	1°02'19
	2395 Sep 09 15:07	0° \mathfrak{M}		greatest brilliancy	2400 Nov 24 22:55	3° \mathfrak{H} 41'32	-2.2m
	2395 Oct 27 05:31	0° \mathfrak{A}			2400 Dec 05 18:13	30° \mathfrak{R} \mathcal{B}	
	2395 Dec 14 16:47	0° \mathfrak{M}		direct	2400 Dec 29 07:08	26° \mathcal{B} 16'41	
	2396 Feb 02 21:42	0° \mathcal{A}			2401 Jan 23 16:59	0° \mathfrak{H}	
	2396 Mar 29 21:51	0° \mathfrak{Z}			2401 Apr 01 22:11	0° \mathfrak{S}	
desc. node	2396 Apr 01 22:04	1° \mathfrak{Z} 24'21			2401 May 24 22:36	0° \mathcal{Q}	
retrograde	2396 Jun 01 19:03	18° \mathfrak{Z} 22'24			2401 Jul 13 22:35	0° \mathfrak{M}	
opposition	2396 Jul 03 21:08	12° \mathfrak{Z} 32'22	-4°-45'-57		2401 Aug 30 23:49	0° \mathfrak{A}	
greatest brilliancy	2396 Jul 05 13:53	12° \mathfrak{Z} 00'55	-2.5m	evening set	2401 Sep 21 16:10	13° \mathfrak{A} 57'36	
min. Earth dist.	2396 Jul 11 08:47	10° \mathfrak{Z} 14'37	0.42460 AU	max. Earth dist.	2401 Oct 12 22:12	27° \mathfrak{A} 56'06	2.59166 AU
direct	2396 Aug 07 13:12	5° \mathfrak{Z} 34'54			2401 Oct 16 00:36	0° \mathfrak{M}	
	2396 Oct 14 07:06	0° \approx					
	2396 Nov 29 01:42	0° \mathfrak{H}		conjunction	2401 Nov 07 10:19	15° \mathfrak{M} 07'32	0°08'57
	2397 Jan 10 07:11	0° Υ		minimum elong	2401 Nov 07 10:39	15° \mathfrak{M} 08'06	0°08'57
asc. node	2397 Feb 01 02:02	15° Υ 34'45		behind sun begin	2401 Nov 06 17:45	14° \mathfrak{M} 39'16	
	2397 Feb 21 09:55	0° \mathcal{B}		behind sun end	2401 Nov 08 03:32	15° \mathfrak{M} 36'57	
	2397 Apr 05 14:42	0° \mathfrak{H}		desc. node	2401 Nov 22 19:02	25° \mathfrak{M} 42'48	
	2397 May 20 07:47	0° \mathfrak{S}			2401 Nov 28 22:34	0° \mathcal{A}	
	2397 Jul 05 09:58	0° \mathcal{Q}		morning rise	2401 Dec 26 01:24	19° \mathcal{A} 15'25	
evening set	2397 Jul 09 11:34	2° \mathcal{Q} 36'51			2402 Jan 09 20:34	0° \mathfrak{Z}	
	2397 Aug 21 08:41	0° \mathfrak{M}			2402 Feb 19 03:34	0° \approx	
					2402 Mar 30 08:54	0° \mathfrak{H}	
conjunction	2397 Aug 25 12:28	2° \mathfrak{M} 38'46	1°07'53		2402 May 08 06:44	0° Υ	
minimum elong	2397 Aug 25 12:48	2° \mathfrak{M} 39'19	1°07'53		2402 Jun 16 21:14	0° \mathcal{B}	
max. Earth dist.	2397 Aug 26 06:11	3° \mathfrak{M} 06'58	2.67537 AU		2402 Jul 28 14:39	0° \mathfrak{H}	
	2397 Oct 07 11:15	0° \mathfrak{A}			2402 Sep 13 10:38	0° \mathfrak{S}	
morning rise	2397 Oct 09 03:22	1° \mathfrak{A} 04'01		asc. node	2402 Sep 23 23:35	5° \mathfrak{S} 55'16	
	2397 Nov 23 04:31	0° \mathfrak{M}		retrograde	2402 Nov 30 02:42	28° \mathfrak{S} 01'09	
	2398 Jan 08 07:31	0° \mathcal{A}		min. Earth dist.	2403 Jan 03 19:11	20° \mathfrak{S} 07'09	0.60997 AU
desc. node	2398 Feb 17 21:31	26° \mathcal{A} 39'39		opposition	2403 Jan 08 21:22	18° \mathfrak{S} 05'57	3°57'49
	2398 Feb 22 23:13	0° \mathfrak{Z}		greatest brilliancy	2403 Jan 07 21:03	18° \mathfrak{S} 30'05	-1.5m
	2398 Apr 09 15:46	0° \approx		direct	2403 Feb 15 16:58	9° \mathfrak{S} 18'39	
	2398 May 27 00:16	0° \mathfrak{H}			2403 Apr 26 20:58	0° \mathcal{Q}	
	2398 Jul 26 16:24	0° Υ			2403 Jun 22 13:52	0° \mathfrak{M}	
retrograde	2398 Aug 21 04:49	4° Υ 11'02			2403 Aug 11 18:37	0° \mathfrak{A}	
	2398 Sep 16 11:09	30° \mathfrak{R} \mathfrak{H}			2403 Sep 27 10:11	0° \mathfrak{M}	
min. Earth dist.	2398 Sep 17 11:42	29° \mathfrak{H} 43'09	0.37935 AU	desc. node	2403 Oct 10 17:50	8° \mathfrak{M} 56'03	
opposition	2398 Sep 21 13:28	28° \mathfrak{H} 35'13	-5°-27'-5	evening set	2403 Nov 02 02:04	24° \mathfrak{M} 18'11	
greatest brilliancy	2398 Sep 20 17:57	28° \mathfrak{H} 48'48	-2.8m		2403 Nov 10 04:46	0° \mathcal{A}	
direct	2398 Oct 21 01:47	23° \mathfrak{H} 33'28		max. Earth dist.	2403 Nov 16 12:38	4° \mathcal{A} 29'18	2.47716 AU

	2403 Dec 21 13:34	0°☾		max. Earth dist.	2408 Jun 21 09:27	19°☿59'07	2.49418 AU
conjunction	2403 Dec 24 12:29	2°☾11'58	0°-42'-13	morning rise	2408 Jul 05 20:40	0°☾	
minimum elong	2403 Dec 24 10:37	2°☾08'29	0°42'12		2408 Jul 07 14:29	1°☾11'39	
	2404 Jan 30 03:15	0°≈			2408 Aug 19 17:43	0°♈	
morning rise	2404 Feb 22 05:17	17°≈55'40			2408 Oct 06 01:18	0°♏	
	2404 Mar 08 15:21	0°♏			2408 Nov 25 17:12	0°♑	
	2404 Apr 15 21:49	0°♑		retrograde	2409 Jan 24 13:56	0°♒	
greatest brilliancy	2404 May 08 22:01	17°♑50'13	1.2m	opposition	2409 Mar 17 05:50	12°♒25'49	
	2404 May 24 20:09	0°♒		greatest brilliancy	2409 Apr 23 22:39	4°♒04'50	1°34'28
	2404 Jul 04 08:47	0°♒		min. Earth dist.	2409 Apr 24 11:58	3°♒52'13	-1.6m
asc. node	2404 Aug 10 22:59	26°♒13'20			2409 Apr 30 07:26	1°♒40'27	0.59846 AU
	2404 Aug 16 14:30	0°☾		desc. node	2409 May 04 22:05	30°♒♑	
	2404 Oct 03 15:45	0°♈		direct	2409 Jun 01 14:30	24°♑18'24	
	2404 Dec 08 04:49	0°♏			2409 Jun 03 20:17	24°♑16'26	
retrograde	2405 Jan 03 12:27	3°♏57'35			2409 Jul 05 13:30	0°♒	
	2405 Jan 27 23:45	30°♒♈			2409 Sep 03 17:15	0°♏	
opposition	2405 Feb 12 19:07	24°♈07'14	4°33'28		2409 Oct 18 10:04	0°☾	
greatest brilliancy	2405 Feb 12 11:52	24°♈14'29	-1.2m		2409 Nov 27 20:18	0°≈	
min. Earth dist.	2405 Feb 11 13:26	24°♈36'55	0.67173 AU		2410 Jan 05 14:44	0°♏	
direct	2405 Mar 25 02:39	14°♈29'09			2410 Feb 13 05:04	0°♑	
	2405 May 23 05:17	0°♏		asc. node	2410 Mar 24 16:52	0°♒	
	2405 Jul 20 01:16	0°♑			2410 Apr 02 20:12	6°♒47'10	
desc. node	2405 Aug 27 17:31	23°♑34'05		evening set	2410 May 04 19:25	0°♒	
	2405 Sep 06 17:25	0°♒			2410 May 06 23:37	1°♒32'58	
	2405 Oct 21 00:12	0°♏			2410 Jun 16 21:18	0°☾	
evening set	2405 Dec 01 06:43	0°☾		conjunction	2410 Jul 01 09:25	9°☾47'59	0°49'21
	2405 Dec 24 06:15	17°☾25'24		minimum elong	2410 Jul 01 07:46	9°☾45'13	0°49'21
	2406 Jan 09 12:41	0°≈		max. Earth dist.	2410 Jul 24 08:06	25°☾02'04	2.60579 AU
	2406 Feb 16 16:40	0°♏			2410 Jul 31 21:53	0°♈	
conjunction	2406 Feb 26 14:47	7°♏50'50	-1°-2'-21	morning rise	2410 Aug 20 11:30	12°♈41'38	
minimum elong	2406 Feb 26 16:31	7°♏54'15	1°02'21		2410 Sep 16 13:51	0°♏	
max. Earth dist.	2406 Mar 13 00:21	19°♏13'10	2.37031 AU		2410 Nov 03 14:48	0°♑	
	2406 Mar 26 17:17	0°♑			2410 Dec 23 09:44	0°♒	
	2406 May 04 12:05	0°♒		desc. node	2411 Feb 15 11:36	0°♏	
morning rise	2406 May 08 15:12	3°♒08'04		retrograde	2411 Apr 19 13:30	24°♏32'00	
	2406 Jun 13 20:04	0°♒		opposition	2411 May 07 13:54	26°♏22'19	
asc. node	2406 Jun 28 20:43	10°♒47'51		greatest brilliancy	2411 Jun 10 14:02	19°♏40'36	-2°-36'-3
	2406 Jul 26 09:15	0°☾		min. Earth dist.	2411 Jun 11 18:10	19°♏16'52	-2.2m
	2406 Sep 09 19:54	0°♈		direct	2411 Jun 19 01:45	16°♏49'19	0.47549 AU
	2406 Oct 29 15:41	0°♏			2411 Jul 17 23:55	11°♏27'14	
	2406 Dec 31 20:49	0°♑			2411 Sep 14 02:36	0°☾	
retrograde	2407 Feb 07 05:39	7°♑10'18			2411 Oct 31 13:16	0°≈	
	2407 Mar 13 08:19	30°♒♏			2411 Dec 12 01:55	0°♏	
opposition	2407 Mar 18 19:42	27°♏52'22	3°45'16	asc. node	2412 Jan 21 10:23	0°♑	
greatest brilliancy	2407 Mar 19 06:24	27°♏41'50	-1.3m		2412 Feb 18 18:40	20°♑52'29	
min. Earth dist.	2407 Mar 21 11:16	26°♏49'49	0.66782 AU		2412 Mar 02 08:15	0°♒	
direct	2407 Apr 29 06:20	17°♏51'30			2412 Apr 13 16:08	0°♒	
	2407 Jun 18 12:10	0°♑		evening set	2412 May 27 17:47	0°☾	
desc. node	2407 Jul 15 16:10	12°♑54'00			2412 Jun 23 08:58	17°☾36'24	
	2407 Aug 14 21:52	0°♒			2412 Jul 12 09:44	0°♈	
	2407 Sep 30 06:32	0°♏		conjunction	2412 Aug 10 22:12	18°♈59'48	1°08'31
	2407 Nov 11 03:17	0°☾		minimum elong	2412 Aug 10 21:59	18°♈59'28	1°08'30
	2407 Dec 20 12:09	0°≈		max. Earth dist.	2412 Aug 17 04:47	23°♈00'31	2.66635 AU
greatest brilliancy	2408 Jan 06 09:05	13°≈11'51	1.2m		2412 Aug 28 03:49	0°♏	
	2408 Jan 27 16:28	0°♏		morning rise	2412 Sep 25 09:03	17°♏56'39	
evening set	2408 Mar 03 07:46	28°♏04'51			2412 Oct 14 08:44	0°♑	
	2408 Mar 05 18:38	0°♑			2412 Nov 30 14:00	0°♒	
	2408 Apr 13 17:21	0°♒			2413 Jan 16 19:08	0°♏	
conjunction	2408 May 08 13:11	18°♒32'24	0°-4'-46	desc. node	2413 Mar 05 13:18	0°☾	
minimum elong	2408 May 08 13:33	18°♒33'04	0°04'47		2413 Mar 06 12:36	0°☾36'03	
behind sun begin	2408 May 07 11:53	17°♒45'49			2413 Apr 24 16:43	0°≈	
behind sun end	2408 May 09 15:13	19°♒20'16		retrograde	2413 Jul 01 02:57	0°♏	
asc. node	2408 May 15 20:09	23°♒53'02			2413 Jul 20 23:33	2°♏24'21	
	2408 May 24 06:14	0°♒		opposition	2413 Aug 09 19:45	30°♒≈	
					2413 Aug 19 23:50	27°≈27'33	-6°-49'-42

greatest brilliancy	2413 Aug 20 12:44	27° \approx 18'59	-2.9m	max. Earth dist.	2418 Nov 01 01:53	18° \mathbb{M} 42'37	2.52668 AU
min. Earth dist.	2413 Aug 21 10:26	27° \approx 04'36	0.37422 AU		2418 Nov 17 06:38	0° \mathcal{Z}	
direct	2413 Sep 19 03:42	22° \approx 23'58					
	2413 Oct 24 12:28	0° \mathcal{H}		conjunction	2418 Dec 04 12:42	12° \mathcal{Z} 16'46	0°-22'-24
	2413 Dec 19 20:30	0° \mathcal{Y}		minimum elong	2418 Dec 04 11:42	12° \mathcal{Z} 14'58	0°22'24
asc. node	2414 Jan 05 16:56	10° \mathcal{Y} 36'38			2418 Dec 28 19:50	0° \mathcal{Z}	
	2414 Feb 04 13:47	0° \mathcal{B}		morning rise	2419 Jan 27 18:11	22° \mathcal{Z} 27'34	
	2414 Mar 22 06:35	0° \mathbb{I}			2419 Feb 06 15:11	0° \approx	
	2414 May 07 12:17	0° \mathcal{S}			2419 Mar 17 08:42	0° \mathcal{H}	
	2414 Jun 23 12:47	0° \mathcal{Q}			2419 Apr 24 19:23	0° \mathcal{Y}	
evening set	2414 Aug 02 01:31	25° \mathcal{Q} 00'51			2419 Jun 02 21:15	0° \mathcal{B}	
	2414 Aug 09 22:38	0° \mathcal{M}			2419 Jul 13 15:44	0° \mathbb{I}	
max. Earth dist.	2414 Sep 09 11:26	19° \mathcal{M} 23'21	2.67238 AU		2419 Aug 26 14:21	0° \mathcal{S}	
				asc. node	2419 Aug 28 14:01	1° \mathcal{S} 16'54	
conjunction	2414 Sep 16 18:11	24° \mathcal{M} 02'15	0°59'02		2419 Oct 16 12:41	0° \mathcal{Q}	
minimum elong	2414 Sep 16 19:09	24° \mathcal{M} 03'47	0°59'01	retrograde	2419 Dec 22 03:16	20° \mathcal{Q} 48'44	
	2414 Sep 26 01:41	0° \mathcal{A}		min. Earth dist.	2420 Jan 28 15:01	11° \mathcal{Q} 58'22	0.65528 AU
morning rise	2414 Oct 31 01:15	22° \mathcal{A} 37'25		opposition	2420 Jan 31 09:06	10° \mathcal{Q} 52'15	4°31'12
	2414 Nov 11 07:39	0° \mathbb{M}		greatest brilliancy	2420 Jan 30 18:14	11° \mathcal{Q} 07'08	-1.3m
	2414 Dec 26 08:49	0° \mathcal{Z}		direct	2420 Mar 10 21:10	1° \mathcal{Q} 30'16	
desc. node	2415 Jan 22 11:42	18° \mathcal{Z} 28'27			2420 Jun 05 05:01	0° \mathcal{M}	
	2415 Feb 08 04:22	0° \mathcal{Z}			2420 Jul 28 16:03	0° \mathcal{A}	
	2415 Mar 22 22:33	0° \approx		desc. node	2420 Sep 13 08:22	29° \mathcal{A} 21'50	
	2415 May 04 02:13	0° \mathcal{H}			2420 Sep 14 07:37	0° \mathbb{M}	
	2415 Jun 15 20:48	0° \mathcal{Y}			2420 Oct 28 08:00	0° \mathcal{Z}	
	2415 Aug 02 09:12	0° \mathcal{B}		evening set	2420 Dec 01 11:25	24° \mathcal{Z} 41'27	
retrograde	2415 Sep 29 21:12	19° \mathcal{B} 20'52			2420 Dec 08 14:48	0° \mathcal{Z}	
min. Earth dist.	2415 Oct 27 05:13	14° \mathcal{B} 16'00	0.43937 AU	max. Earth dist.	2420 Dec 23 12:19	11° \mathcal{Z} 13'03	2.39871 AU
opposition	2415 Nov 04 06:00	11° \mathcal{B} 33'25	-1°-9'-44		2421 Jan 16 23:14	0° \approx	
greatest brilliancy	2415 Nov 03 17:46	11° \mathcal{B} 43'47	-2.5m				
asc. node	2415 Nov 23 16:57	6° \mathcal{B} 17'08		conjunction	2421 Jan 29 15:31	9° \approx 52'40	-1°-3'-27
direct	2415 Dec 06 05:12	5° \mathcal{B} 13'05		minimum elong	2421 Jan 29 14:26	9° \approx 50'33	1°03'28
	2416 Feb 19 06:44	0° \mathbb{I}			2421 Feb 24 05:47	0° \mathcal{H}	
	2416 Apr 13 01:13	0° \mathcal{S}			2421 Apr 03 07:47	0° \mathcal{Y}	
	2416 Jun 02 07:27	0° \mathcal{Q}		morning rise	2421 Apr 08 13:44	4° \mathcal{Y} 06'26	
	2416 Jul 21 06:02	0° \mathcal{M}			2421 May 12 02:35	0° \mathcal{B}	
	2416 Sep 06 21:36	0° \mathcal{A}			2421 Jun 21 10:19	0° \mathbb{I}	
evening set	2416 Sep 07 00:04	0° \mathcal{A} 03'56		asc. node	2421 Jul 15 13:54	17° \mathbb{I} 13'27	
max. Earth dist.	2416 Oct 02 10:31	16° \mathcal{A} 30'33	2.62445 AU		2421 Aug 03 01:54	0° \mathcal{S}	
					2421 Sep 18 01:57	0° \mathcal{Q}	
conjunction	2416 Oct 22 19:47	29° \mathcal{A} 56'59	0°26'36		2421 Nov 09 06:49	0° \mathcal{M}	
minimum elong	2416 Oct 22 20:38	29° \mathcal{A} 58'24	0°26'36	retrograde	2422 Jan 24 12:50	24° \mathcal{M} 29'29	
	2416 Oct 22 21:36	0° \mathbb{M}		opposition	2422 Mar 05 12:50	14° \mathcal{M} 56'16	4°12'51
	2416 Dec 06 00:26	0° \mathcal{Z}		greatest brilliancy	2422 Mar 05 17:19	14° \mathcal{M} 51'50	-1.2m
morning rise	2416 Dec 08 07:36	1° \mathcal{Z} 35'57		min. Earth dist.	2422 Mar 06 16:14	14° \mathcal{M} 29'06	0.67724 AU
desc. node	2416 Dec 09 11:11	2° \mathcal{Z} 24'00		direct	2422 Apr 15 17:11	5° \mathcal{M} 01'00	
	2417 Jan 17 07:12	0° \mathcal{Z}			2422 Jul 02 23:18	0° \mathcal{A}	
	2417 Feb 27 00:52	0° \approx		desc. node	2422 Aug 01 07:19	16° \mathcal{A} 09'55	
	2417 Apr 07 17:20	0° \mathcal{H}			2422 Aug 24 02:44	0° \mathbb{M}	
	2417 May 17 02:26	0° \mathcal{Y}			2422 Oct 08 08:50	0° \mathcal{Z}	
	2417 Jun 26 07:39	0° \mathcal{B}			2422 Nov 18 21:48	0° \mathcal{Z}	
	2417 Aug 08 08:45	0° \mathbb{I}			2422 Dec 28 04:22	0° \approx	
	2417 Sep 29 17:27	0° \mathcal{S}		evening set	2423 Feb 03 19:00	29° \approx 34'48	
asc. node	2417 Oct 10 15:30	4° \mathcal{S} 37'16			2423 Feb 04 07:45	0° \mathcal{H}	
retrograde	2417 Nov 15 00:24	12° \mathcal{S} 09'40			2423 Mar 14 08:27	0° \mathcal{Y}	
min. Earth dist.	2417 Dec 17 16:05	4° \mathcal{S} 58'39	0.56924 AU				
greatest brilliancy	2417 Dec 23 01:38	2° \mathcal{S} 52'23	-1.7m	conjunction	2423 Apr 13 02:38	23° \mathcal{Y} 04'23	0°-32'-9
opposition	2417 Dec 24 03:54	2° \mathcal{S} 26'44	3°12'11	minimum elong	2423 Apr 13 05:18	23° \mathcal{Y} 09'30	0°32'08
	2417 Dec 30 14:57	30° \mathbb{R} \mathbb{I}			2423 Apr 22 04:37	0° \mathcal{B}	
direct	2418 Jan 29 14:54	24° \mathbb{I} 09'39			2423 Jun 01 14:20	0° \mathbb{I}	
	2418 Mar 03 16:34	0° \mathcal{S}		asc. node	2423 Jun 02 13:07	0° \mathbb{I} 41'16	
	2418 May 09 01:01	0° \mathcal{Q}		max. Earth dist.	2423 Jun 03 02:58	1° \mathbb{I} 06'19	2.44041 AU
	2418 Jul 01 00:21	0° \mathcal{M}		morning rise	2423 Jun 17 13:06	11° \mathbb{I} 26'54	
	2418 Aug 19 03:25	0° \mathcal{A}			2423 Jul 14 02:22	0° \mathcal{S}	
	2418 Oct 04 11:33	0° \mathbb{M}			2423 Aug 28 01:18	0° \mathcal{Q}	
evening set	2418 Oct 16 00:54	7° \mathbb{M} 45'18			2423 Oct 14 22:54	0° \mathcal{M}	
desc. node	2418 Oct 27 09:47	15° \mathbb{M} 29'47			2423 Dec 06 21:39	0° \mathcal{A}	

retrograde	2424 Mar 01 04:16	28°♄20'42		2429 Feb 15 07:58	0°♄	
opposition	2424 Apr 08 18:58	19°♄33'43	2°36'27	2429 Mar 31 04:39	0°♄	
greatest brilliancy	2424 Apr 09 10:38	19°♄18'36	-1.4m	2429 May 15 07:53	0°♄	
min. Earth dist.	2424 Apr 13 18:07	17°♄38'47	0.63312 AU	2429 Jun 30 16:31	0°♄	
direct	2424 May 20 03:46	9°♄34'25		2429 Jul 18 05:37	11°♄12'45	
desc. node	2424 Jun 18 06:09	14°♄18'36		2429 Aug 16 18:18	0°♄	
	2424 Jul 25 18:41	0°♄		2429 Aug 31 11:36	9°♄21'29	2.67672 AU
	2424 Sep 14 11:13	0°♄				
	2424 Oct 27 13:08	0°♄		conjunction	2429 Sep 02 15:36	10°♄44'11 1°05'41
	2424 Dec 06 09:05	0°♄		minimum elong	2429 Sep 02 16:13	10°♄45'10 1°05'40
	2425 Jan 13 19:33	0°♄			2429 Oct 02 20:37	0°♄
	2425 Feb 21 03:10	0°♄		morning rise	2429 Oct 17 00:31	9°♄04'41
	2425 Apr 01 08:04	0°♄			2429 Nov 18 09:30	0°♄
evening set	2425 Apr 13 23:55	9°♄27'02			2430 Jan 03 02:07	0°♄
asc. node	2425 Apr 19 11:37	13°♄30'28		desc. node	2430 Feb 08 04:04	24°♄04'48
	2425 May 12 03:45	0°♄			2430 Feb 16 23:17	0°♄
					2430 Apr 02 07:30	0°♄
conjunction	2425 Jun 12 10:35	22°♄03'25	0°32'34		2430 May 16 22:34	0°♄
minimum elong	2425 Jun 12 08:56	22°♄00'34	0°32'33		2430 Jul 04 02:05	0°♄
	2425 Jun 23 23:36	0°♄		retrograde	2430 Sep 05 23:35	21°♄55'51
max. Earth dist.	2425 Jul 13 00:28	12°♄53'01	2.56782 AU	min. Earth dist.	2430 Oct 02 10:17	17°♄26'37 0.39504 AU
morning rise	2425 Aug 04 15:29	27°♄52'59		opposition	2430 Oct 08 16:20	15°♄35'15 -3°-56'-6
	2425 Aug 07 21:04	0°♄		greatest brilliancy	2430 Oct 07 15:17	15°♄53'57 -2.8m
	2425 Sep 23 15:57	0°♄		direct	2430 Nov 07 21:07	10°♄10'55
	2425 Nov 11 09:05	0°♄		asc. node	2430 Dec 10 07:59	16°♄19'58
	2426 Jan 02 06:12	0°♄			2431 Jan 10 17:35	0°♄
	2426 Mar 07 00:09	0°♄			2431 Mar 05 04:39	0°♄
retrograde	2426 Apr 15 07:13	7°♄45'14			2431 Apr 23 13:09	0°♄
desc. node	2426 May 06 04:28	5°♄01'58			2431 Jun 11 03:29	0°♄
opposition	2426 May 21 01:06	0°♄17'56	0°-41'-33		2431 Jul 29 08:05	0°♄
greatest brilliancy	2426 May 21 08:52	0°♄10'59	-1.9m	evening set	2431 Aug 24 16:22	16°♄35'47
	2426 May 21 21:08	30°♄			2431 Sep 14 17:06	0°♄
min. Earth dist.	2426 May 29 03:59	27°♄23'41	0.52797 AU	max. Earth dist.	2431 Sep 23 22:08	5°♄55'19 2.64959 AU
direct	2426 Jun 29 08:20	21°♄11'53				
	2426 Aug 07 04:48	0°♄		conjunction	2431 Oct 09 01:59	15°♄45'08 0°41'34
	2426 Sep 30 12:07	0°♄		minimum elong	2431 Oct 09 03:04	15°♄46'54 0°41'34
	2426 Nov 12 06:44	0°♄			2431 Oct 30 18:15	0°♄
	2426 Dec 22 04:00	0°♄		morning rise	2431 Nov 23 05:21	15°♄42'19
	2427 Jan 30 13:02	0°♄			2431 Dec 14 04:13	0°♄
asc. node	2427 Mar 07 11:13	26°♄53'03		desc. node	2431 Dec 27 02:33	8°♄57'04
	2427 Mar 11 16:49	0°♄			2432 Jan 25 22:52	0°♄
	2427 Apr 22 09:52	0°♄			2432 Mar 07 07:11	0°♄
	2427 Jun 04 23:45	0°♄			2432 Apr 16 15:46	0°♄
evening set	2427 Jun 07 00:29	1°♄22'01			2432 May 26 19:00	0°♄
	2427 Jul 20 07:57	0°♄			2432 Jul 07 03:45	0°♄
					2432 Aug 22 06:47	0°♄
conjunction	2427 Jul 27 16:04	4°♄46'02	1°04'54	asc. node	2432 Oct 27 08:13	24°♄10'48
minimum elong	2427 Jul 27 15:14	4°♄44'41	1°04'53	retrograde	2432 Oct 29 10:37	24°♄12'44
max. Earth dist.	2427 Aug 09 01:27	12°♄46'14	2.64918 AU	min. Earth dist.	2432 Nov 28 21:38	17°♄50'30 0.52052 AU
	2427 Sep 04 23:26	0°♄		opposition	2432 Dec 06 13:41	14°♄57'03 1°59'43
morning rise	2427 Sep 12 10:35	4°♄44'49		greatest brilliancy	2432 Dec 05 16:32	15°♄17'01 -2.0m
	2427 Oct 22 09:24	0°♄		direct	2433 Jan 10 09:45	7°♄18'38
	2427 Dec 09 07:41	0°♄			2433 Mar 24 06:50	0°♄
	2428 Jan 27 03:45	0°♄			2433 May 19 00:04	0°♄
	2428 Mar 18 18:34	0°♄			2433 Jul 08 20:51	0°♄
desc. node	2428 Mar 23 04:15	2°♄23'58			2433 Aug 26 06:30	0°♄
	2428 May 25 19:49	0°♄		evening set	2433 Sep 30 07:16	22°♄38'07
retrograde	2428 Jun 18 14:14	3°♄15'08			2433 Oct 11 10:06	0°♄
	2428 Jul 12 00:56	30°♄		max. Earth dist.	2433 Oct 19 10:26	5°♄22'04 2.57035 AU
opposition	2428 Jul 19 16:40	27°♄53'03	-5°-53'-59	desc. node	2433 Nov 13 00:58	22°♄09'20
greatest brilliancy	2428 Jul 21 07:05	27°♄25'20	-2.7m			
min. Earth dist.	2428 Jul 25 17:22	26°♄09'23	0.40044 AU	conjunction	2433 Nov 16 19:38	24°♄46'35 0°-2'-15
direct	2428 Aug 21 11:44	21°♄44'08		minimum elong	2433 Nov 16 19:34	24°♄46'29 0°02'15
	2428 Sep 26 23:40	0°♄		behind sun begin	2433 Nov 15 23:15	24°♄11'12
	2428 Nov 19 20:07	0°♄		behind sun end	2433 Nov 17 15:53	25°♄21'48
	2429 Jan 03 03:55	0°♄			2433 Nov 24 07:12	0°♄
asc. node	2429 Jan 22 09:35	13°♄22'36			2434 Jan 05 02:17	0°♄

morning rise	2434 Jan 06 01:45	0°☾43'06		opposition	2439 Mar 26 15:22	5°♂54'36	3°23'38
	2434 Feb 14 05:02	0°≈		greatest brilliancy	2439 Mar 27 04:42	5°♂41'34	-1.3m
	2434 Mar 25 05:56	0°✠		min. Earth dist.	2439 Mar 30 03:19	4°♂32'31	0.65810 AU
	2434 May 02 23:12	0°☿			2439 Apr 11 17:32	30°♂♂	
	2434 Jun 11 07:43	0°♂		direct	2439 May 07 03:28	25°♂52'36	
	2434 Jul 22 13:39	0°♂			2439 Jun 03 11:36	0°♂	
	2434 Sep 05 21:08	0°♂		desc. node	2439 Jul 05 21:36	12°♂25'25	
asc. node	2434 Sep 14 07:54	5°♂05'46			2439 Aug 08 05:22	0°♂	
	2434 Nov 03 18:05	0°♂			2439 Sep 24 17:10	0°♂	
retrograde	2434 Dec 08 07:49	6°♂52'48			2439 Nov 05 22:53	0°♂	
	2435 Jan 09 12:47	30°♂♂			2439 Dec 15 11:15	0°≈	
min. Earth dist.	2435 Jan 13 01:17	28°♂37'27	0.62863 AU		2440 Jan 22 17:30	0°✠	
greatest brilliancy	2435 Jan 16 10:06	27°♂16'56	-1.4m		2440 Feb 29 21:13	0°☿	
opposition	2435 Jan 17 07:38	26°♂55'26	4°15'03	evening set	2440 Mar 19 01:15	14°☿05'39	
direct	2435 Feb 24 18:54	17°♂54'18			2440 Apr 08 21:23	0°♂	
	2435 Apr 16 14:40	0°♂		asc. node	2440 May 06 04:47	20°♂20'01	
	2435 Jun 16 12:11	0°♂			2440 May 19 11:43	0°♂	
	2435 Aug 06 15:56	0°♂					
	2435 Sep 22 15:46	0°♂		conjunction	2440 May 21 23:58	1°♂48'31	0°10'10
desc. node	2435 Sep 30 23:52	5°♂33'15		minimum elong	2440 May 21 23:15	1°♂47'15	0°10'09
	2435 Nov 05 12:44	0°♂		behind sun begin	2440 May 21 03:26	1°♂11'35	
evening set	2435 Nov 12 11:17	4°♂55'12		behind sun end	2440 May 22 19:05	2°♂22'53	
max. Earth dist.	2435 Nov 27 02:32	15°♂27'08	2.44871 AU	max. Earth dist.	2440 Jun 29 21:34	29°♂09'42	2.52215 AU
	2435 Dec 16 21:14	0°♂			2440 Jul 01 02:52	0°♂	
				morning rise	2440 Jul 18 07:25	11°♂40'45	
conjunction	2436 Jan 05 23:43	15°♂07'46	0°-52'-3		2440 Aug 14 22:35	0°♂	
minimum elong	2436 Jan 05 21:40	15°♂03'53	0°52'03		2440 Sep 30 23:26	0°♂	
	2436 Jan 25 09:04	0°≈			2440 Nov 19 17:26	0°♂	
	2436 Mar 03 18:58	0°✠			2441 Jan 14 09:02	0°♂	
greatest brilliancy	2436 Mar 05 00:02	0°✠57'07	1.2m	retrograde	2441 Mar 27 02:13	21°♂25'46	
morning rise	2436 Mar 09 04:35	4°✠14'51		opposition	2441 May 03 04:41	13°♂21'46	0°50'34
	2436 Apr 10 23:21	0°☿		greatest brilliancy	2441 May 03 13:14	13°♂13'49	-1.7m
	2436 May 19 19:29	0°♂		min. Earth dist.	2441 May 10 06:59	10°♂43'20	0.57547 AU
	2436 Jun 29 05:00	0°♂		desc. node	2441 May 22 20:55	6°♂36'46	
asc. node	2436 Aug 01 05:48	23°♂17'06		direct	2441 Jun 12 16:35	3°♂43'53	
	2436 Aug 11 03:02	0°♂			2441 Aug 26 14:28	0°♂	
	2436 Sep 27 03:20	0°♂			2441 Oct 12 03:08	0°♂	
	2436 Nov 23 12:09	0°♂			2441 Nov 22 03:27	0°≈	
retrograde	2437 Jan 11 03:55	11°♂47'54			2441 Dec 31 04:51	0°✠	
opposition	2437 Feb 20 09:25	2°♂02'52	4°29'13		2442 Feb 08 00:06	0°☿	
greatest brilliancy	2437 Feb 20 06:32	2°♂05'44	-1.2m		2442 Mar 19 16:00	0°♂	
min. Earth dist.	2437 Feb 20 00:18	2°♂11'57	0.67647 AU	asc. node	2442 Mar 24 02:38	3°♂17'40	
	2437 Feb 25 13:44	30°♂♂			2442 Apr 29 22:22	0°♂	
direct	2437 Apr 02 01:43	22°♂17'34		evening set	2442 May 18 21:17	13°♂19'55	
	2437 May 11 09:11	0°♂			2442 Jun 12 03:21	0°♂	
	2437 Jul 13 19:21	0°♂					
desc. node	2437 Aug 17 22:49	20°♂49'00		conjunction	2442 Jul 11 08:28	19°♂33'53	0°56'33
	2437 Sep 01 11:38	0°♂		minimum elong	2442 Jul 11 07:03	19°♂31'32	0°56'33
	2437 Oct 16 02:15	0°♂			2442 Jul 27 05:38	0°♂	
	2437 Nov 26 11:30	0°♂		max. Earth dist.	2442 Jul 30 08:13	2°♂01'38	2.62369 AU
	2438 Jan 04 17:54	0°≈		morning rise	2442 Aug 29 01:03	21°♂11'58	
evening set	2438 Jan 07 10:38	2°≈06'03			2442 Sep 11 20:19	0°♂	
	2438 Feb 11 21:40	0°✠			2442 Oct 29 14:24	0°♂	
					2442 Dec 17 13:24	0°♂	
conjunction	2438 Mar 15 02:51	24°♂39'41	0°-54'-53		2443 Feb 07 01:56	0°♂	
minimum elong	2438 Mar 15 05:53	24°♂45'39	0°54'52	desc. node	2443 Apr 09 19:39	29°♂52'18	
	2438 Mar 21 21:55	0°☿			2443 Apr 10 03:57	0°♂	
	2438 Apr 29 16:18	0°♂		retrograde	2443 May 21 18:50	8°♂44'39	
max. Earth dist.	2438 Apr 30 04:07	0°♂22'29	2.38823 AU	opposition	2443 Jun 23 17:38	2°♂30'54	-3°-49'-10
morning rise	2438 May 24 01:49	18°♂19'32		greatest brilliancy	2443 Jun 25 06:58	2°♂00'45	-2.4m
	2438 Jun 08 23:43	0°♂			2443 Jul 01 13:18	30°♂♂	
asc. node	2438 Jun 19 05:14	7°♂22'57		min. Earth dist.	2443 Jul 01 20:59	29°♂54'00	0.44673 AU
	2438 Jul 21 10:55	0°♂		direct	2443 Jul 29 17:19	24°♂56'38	
	2438 Sep 04 14:55	0°♂			2443 Aug 26 16:38	0°♂	
	2438 Oct 23 11:55	0°♂			2443 Oct 22 16:46	0°≈	
	2438 Dec 19 21:42	0°♂			2443 Dec 05 01:23	0°✠	
retrograde	2439 Feb 15 07:57	15°♂02'31			2444 Jan 15 06:51	0°☿	

asc. node	2444 Feb 09 01:46	18°♄00'53		morning rise	2448 Dec 18 03:51	11°♂49'13	
	2444 Feb 25 18:02	0°♄			2449 Jan 12 11:11	0°♄	
	2444 Apr 08 11:30	0°♄			2449 Feb 21 23:26	0°♄	
	2444 May 22 20:06	0°♄			2449 Apr 02 09:46	0°♄	
evening set	2444 Jul 02 17:23	26°♄47'09			2449 May 11 12:02	0°♄	
	2444 Jul 07 16:44	0°♄			2449 Jun 20 07:06	0°♄	
					2449 Aug 01 09:49	0°♄	
conjunction	2444 Aug 19 08:29	27°♄20'17	1°08'38		2449 Sep 18 16:29	0°♄	
minimum elong	2444 Aug 19 08:37	27°♄20'29	1°08'37	asc. node	2449 Sep 30 23:20	6°♄22'51	
max. Earth dist.	2444 Aug 22 12:02	29°♄20'38	2.67244 AU	retrograde	2449 Nov 23 19:31	21°♄52'11	
	2444 Aug 23 12:46	0°♄		min. Earth dist.	2449 Dec 27 14:39	14°♄16'40	0.59280 AU
morning rise	2444 Oct 03 06:39	25°♄55'29		greatest brilliancy	2450 Jan 01 06:19	12°♄26'41	-1.6m
	2444 Oct 09 16:14	0°♄		opposition	2450 Jan 02 08:11	12°♄01'07	3°41'43
	2444 Nov 25 14:39	0°♄		direct	2450 Feb 08 13:56	3°♄26'19	
	2445 Jan 11 04:19	0°♄			2450 May 01 13:08	0°♄	
desc. node	2445 Feb 24 18:52	28°♄48'05			2450 Jun 25 11:18	0°♄	
	2445 Feb 26 15:33	0°♄			2450 Aug 14 05:23	0°♄	
	2445 Apr 14 20:04	0°♄			2450 Sep 29 18:55	0°♄	
	2445 Jun 05 00:00	0°♄		desc. node	2450 Oct 17 15:00	11°♄59'53	
retrograde	2445 Aug 07 21:24	20°♄38'56		evening set	2450 Oct 25 13:45	17°♄26'08	
min. Earth dist.	2445 Sep 05 16:20	15°♄57'12	0.37296 AU	max. Earth dist.	2450 Nov 09 10:03	27°♄45'02	2.49982 AU
opposition	2445 Sep 07 10:20	15°♄29'02	-6°-19'-37		2450 Nov 12 14:51	0°♄	
greatest brilliancy	2445 Sep 07 03:04	15°♄33'55	-2.9m				
direct	2445 Oct 06 21:49	10°♄34'47		conjunction	2450 Dec 15 13:27	23°♄41'38	0°-34'00
	2445 Dec 07 09:55	0°♄		minimum elong	2450 Dec 15 11:54	23°♄38'49	0°34'00
asc. node	2445 Dec 27 01:30	10°♄51'22			2450 Dec 24 02:45	0°♄	
	2446 Jan 27 18:16	0°♄			2451 Feb 01 19:38	0°♄	
	2446 Mar 16 02:27	0°♄		morning rise	2451 Feb 10 15:15	6°♄47'50	
	2446 May 02 03:52	0°♄			2451 Mar 12 10:26	0°♄	
	2446 Jun 18 15:11	0°♄			2451 Apr 19 18:41	0°♄	
	2446 Aug 05 06:35	0°♄			2451 May 28 17:43	0°♄	
evening set	2446 Aug 10 09:00	3°♄13'12			2451 Jul 08 07:14	0°♄	
max. Earth dist.	2446 Sep 14 18:33	25°♄42'13	2.66660 AU	asc. node	2451 Aug 18 22:54	28°♄50'11	
	2446 Sep 21 11:32	0°♄			2451 Aug 20 17:05	0°♄	
					2451 Oct 08 13:54	0°♄	
conjunction	2446 Sep 24 20:08	2°♄09'22	0°53'32	retrograde	2451 Dec 29 20:24	28°♄52'18	
minimum elong	2446 Sep 24 21:12	2°♄11'05	0°53'31	min. Earth dist.	2452 Feb 06 05:39	19°♄44'26	0.66560 AU
	2446 Nov 06 15:44	0°♄		opposition	2452 Feb 08 03:16	18°♄58'49	4°34'09
morning rise	2446 Nov 08 06:45	1°♄04'19		greatest brilliancy	2452 Feb 07 16:38	19°♄09'28	-1.3m
	2446 Dec 21 11:08	0°♄		direct	2452 Mar 19 02:38	9°♄27'18	
desc. node	2447 Jan 12 17:53	15°♄16'57			2452 May 28 07:09	0°♄	
	2447 Feb 02 20:53	0°♄			2452 Jul 23 01:31	0°♄	
	2447 Mar 17 00:52	0°♄		desc. node	2452 Sep 03 14:45	26°♄17'13	
	2447 Apr 27 09:11	0°♄			2452 Sep 09 08:09	0°♄	
	2447 Jun 07 20:11	0°♄			2452 Oct 23 13:23	0°♄	
	2447 Jul 21 19:01	0°♄			2452 Dec 03 21:13	0°♄	
	2447 Sep 19 18:25	0°♄		evening set	2452 Dec 13 23:41	7°♄35'28	
retrograde	2447 Oct 11 17:20	3°♄18'37			2453 Jan 12 04:53	0°♄	
	2447 Nov 02 04:37	30°♄		max. Earth dist.	2453 Jan 19 17:50	5°♄52'23	2.37639 AU
min. Earth dist.	2447 Nov 09 01:46	27°♄47'14	0.46807 AU				
asc. node	2447 Nov 14 00:27	26°♄02'25		conjunction	2453 Feb 14 02:14	25°♄47'29	-1°-4'-41
opposition	2447 Nov 17 07:17	24°♄52'01	0°11'06	minimum elong	2453 Feb 14 02:38	25°♄48'16	1°04'42
greatest brilliancy	2448 Feb 11 23:29	2°♄10'44	-3.1m		2453 Feb 19 10:09	0°♄	
direct	2447 Dec 20 06:58	18°♄01'25			2453 Mar 29 11:07	0°♄	
	2448 Feb 06 22:01	0°♄		morning rise	2453 Apr 25 20:03	21°♄17'13	
	2448 Apr 06 04:04	0°♄			2453 May 07 05:06	0°♄	
	2448 May 27 20:01	0°♄			2453 Jun 16 11:39	0°♄	
	2448 Jul 16 08:18	0°♄		asc. node	2453 Jul 05 20:46	13°♄54'01	
	2448 Sep 02 05:47	0°♄			2453 Jul 29 00:09	0°♄	
evening set	2448 Sep 15 08:23	8°♄24'36			2453 Sep 12 13:41	0°♄	
max. Earth dist.	2448 Oct 08 10:04	23°♄27'20	2.60732 AU		2453 Nov 02 02:17	0°♄	
	2448 Oct 18 07:12	0°♄			2454 Jan 12 15:52	0°♄	
				retrograde	2454 Feb 01 07:39	2°♄12'33	
conjunction	2448 Oct 31 14:33	8°♄55'10	0°16'39		2454 Feb 19 20:07	30°♄	
minimum elong	2448 Oct 31 15:08	8°♄56'09	0°16'39	opposition	2454 Mar 13 03:06	22°♄47'29	3°57'58
desc. node	2448 Nov 29 16:21	28°♄50'27		greatest brilliancy	2454 Mar 13 11:14	22°♄39'27	-1.2m
	2448 Dec 01 08:18	0°♄		min. Earth dist.	2454 Mar 15 02:55	22°♄00'16	0.67336 AU

direct	2454 Apr 23 11:55	12° \mathbb{M} 48'27		2459 Jul 15 15:39	0° Ω	
	2454 Jun 24 10:31	0° $\underline{\Omega}$				
desc. node	2454 Jul 22 13:38	14° $\underline{\Omega}$ 23'53		conjunction	2459 Aug 05 12:17	13° Ω 28'52 1°07'32
	2454 Aug 18 06:29	0° \mathbb{M}		minimum elong	2459 Aug 05 11:49	13° Ω 28'06 1°07'32
	2454 Oct 03 04:31	0° \mathbb{J}		max. Earth dist.	2459 Aug 14 12:18	19° Ω 15'28 2.65966 AU
	2454 Nov 13 23:05	0° \mathbb{Z}			2459 Aug 31 07:45	0° \mathbb{M}
	2454 Dec 23 07:31	0° \approx		morning rise	2459 Sep 20 11:37	12° \mathbb{M} 49'12
	2455 Jan 30 11:26	0° \mathbb{H}			2459 Oct 17 14:26	0° $\underline{\Omega}$
evening set	2455 Feb 19 20:20	16° \mathbb{H} 06'07			2459 Dec 04 02:25	0° \mathbb{M}
greatest brilliancy	2455 Feb 24 01:22	19° \mathbb{H} 25'19 1.2m			2460 Jan 20 22:38	0° \mathbb{J}
	2455 Mar 09 12:30	0° \mathbb{Y}			2460 Mar 10 01:19	0° \mathbb{Z}
	2455 Apr 17 09:02	0° \mathbb{B}		desc. node	2460 Mar 13 10:04	1° \mathbb{Z} 59'45
					2460 May 03 01:39	0° \approx
conjunction	2455 Apr 28 10:49	8° \mathbb{B} 21'22 0°-16'-33		retrograde	2460 Jul 06 14:45	19° \approx 32'08
minimum elong	2455 Apr 28 12:12	8° \mathbb{B} 23'59 0°16'32		opposition	2460 Aug 05 19:44	14° \approx 30'20 -6°-39'-49
asc. node	2455 May 23 20:03	27° \mathbb{B} 07'21		greatest brilliancy	2460 Aug 06 23:29	14° \approx 11'30 -2.8m
	2455 May 27 19:07	0° \mathbb{I}		min. Earth dist.	2460 Aug 09 15:13	13° \approx 28'19 0.38254 AU
max. Earth dist.	2455 Jun 14 20:26	12° \mathbb{I} 56'24 2.47048 AU		direct	2460 Sep 05 23:50	9° \approx 03'33
morning rise	2455 Jun 29 21:19	23° \mathbb{I} 29'52			2460 Nov 07 13:35	0° \mathbb{H}
	2455 Jul 09 06:59	0° \mathbb{S}			2460 Dec 26 00:41	0° \mathbb{Y}
	2455 Aug 23 03:02	0° Ω		asc. node	2461 Jan 12 16:52	11° \mathbb{Y} 45'16
	2455 Oct 09 14:20	0° \mathbb{M}			2461 Feb 08 19:14	0° \mathbb{B}
	2455 Nov 29 23:48	0° $\underline{\Omega}$			2461 Mar 25 12:40	0° \mathbb{I}
	2456 Feb 02 17:46	0° \mathbb{M}			2461 May 10 04:44	0° \mathbb{S}
retrograde	2456 Mar 10 03:43	6° \mathbb{M} 44'44			2461 Jun 25 21:02	0° Ω
	2456 Apr 12 12:01	30° \mathbb{R} $\underline{\Omega}$		evening set	2461 Jul 26 19:02	19° Ω 38'48
opposition	2456 Apr 17 07:27	28° $\underline{\Omega}$ 11'33 2°02'14			2461 Aug 12 02:49	0° \mathbb{M}
greatest brilliancy	2456 Apr 17 22:24	27° $\underline{\Omega}$ 57'16 -1.5m		max. Earth dist.	2461 Sep 05 16:22	15° \mathbb{M} 36'10 2.67536 AU
min. Earth dist.	2456 Apr 23 01:53	25° $\underline{\Omega}$ 59'27 0.61516 AU				
direct	2456 May 28 11:43	18° $\underline{\Omega}$ 17'02		conjunction	2461 Sep 10 18:00	18° \mathbb{M} 49'51 1°02'13
desc. node	2456 Jun 08 11:43	19° $\underline{\Omega}$ 02'08		minimum elong	2461 Sep 10 18:50	18° \mathbb{M} 51'12 1°02'12
	2456 Jul 15 02:18	0° \mathbb{M}			2461 Sep 28 05:39	0° $\underline{\Omega}$
	2456 Sep 07 21:55	0° \mathbb{J}		morning rise	2461 Oct 25 00:33	17° $\underline{\Omega}$ 14'56
	2456 Oct 21 21:17	0° \mathbb{Z}			2461 Nov 13 14:53	0° \mathbb{M}
	2456 Dec 01 01:29	0° \approx			2461 Dec 28 23:05	0° \mathbb{J}
	2457 Jan 08 16:12	0° \mathbb{H}		desc. node	2462 Jan 29 09:01	21° \mathbb{J} 13'04
	2457 Feb 16 02:59	0° \mathbb{Y}			2462 Feb 11 05:36	0° \mathbb{Z}
	2457 Mar 27 10:33	0° \mathbb{B}			2462 Mar 26 15:01	0° \approx
asc. node	2457 Apr 09 20:07	9° \mathbb{B} 58'25			2462 May 08 16:06	0° \mathbb{H}
evening set	2457 Apr 27 08:17	22° \mathbb{B} 47'13			2462 Jun 22 00:14	0° \mathbb{Y}
	2457 May 07 08:33	0° \mathbb{I}			2462 Aug 14 17:35	0° \mathbb{B}
	2457 Jun 19 06:16	0° \mathbb{S}		retrograde	2462 Sep 19 23:38	8° \mathbb{B} 22'26
				min. Earth dist.	2462 Oct 16 17:31	3° \mathbb{B} 36'34 0.41772 AU
conjunction	2457 Jun 23 11:35	2° \mathbb{S} 52'37 0°42'56		greatest brilliancy	2462 Oct 23 09:07	1° \mathbb{B} 28'48 -2.6m
minimum elong	2457 Jun 23 09:50	2° \mathbb{S} 49'39 0°42'55		opposition	2462 Oct 24 05:39	1° \mathbb{B} 12'15 -2°-19'-6
max. Earth dist.	2457 Jul 19 17:09	20° \mathbb{S} 28'54 2.58972 AU			2462 Oct 28 01:08	30° \mathbb{R} \mathbb{Y}
	2457 Aug 03 03:59	0° Ω		direct	2462 Nov 24 08:52	25° \mathbb{Y} 17'36
morning rise	2457 Aug 13 20:31	6° Ω 57'53		asc. node	2462 Nov 30 16:58	25° \mathbb{Y} 33'34
	2457 Sep 18 19:57	0° \mathbb{M}			2462 Dec 22 14:46	0° \mathbb{B}
	2457 Nov 06 02:26	0° $\underline{\Omega}$			2463 Feb 25 01:22	0° \mathbb{I}
	2457 Dec 26 14:53	0° \mathbb{M}			2463 Apr 17 12:18	0° \mathbb{S}
	2458 Feb 21 09:29	0° \mathbb{J}			2463 Jun 05 23:01	0° Ω
desc. node	2458 Apr 26 10:43	18° \mathbb{J} 25'11			2463 Jul 24 13:17	0° \mathbb{M}
retrograde	2458 Apr 27 11:20	18° \mathbb{J} 25'34		evening set	2463 Sep 01 20:32	24° \mathbb{M} 44'09
opposition	2458 Jun 01 06:40	11° \mathbb{J} 22'26 -1°-44'-20			2463 Sep 10 02:28	0° $\underline{\Omega}$
greatest brilliancy	2458 Jun 02 02:09	11° \mathbb{J} 05'29 -2.1m		max. Earth dist.	2463 Sep 29 10:21	12° $\underline{\Omega}$ 27'33 2.63666 AU
min. Earth dist.	2458 Jun 09 16:55	8° \mathbb{J} 26'51 0.49928 AU				
direct	2458 Jul 09 15:09	2° \mathbb{J} 42'20		conjunction	2463 Oct 17 10:13	24° $\underline{\Omega}$ 13'40 0°33'13
	2458 Sep 21 12:20	0° \mathbb{Z}		minimum elong	2463 Oct 17 11:12	24° $\underline{\Omega}$ 15'18 0°33'12
	2458 Nov 05 09:08	0° \approx			2463 Oct 26 03:42	0° \mathbb{M}
	2458 Dec 16 01:19	0° \mathbb{H}		morning rise	2463 Dec 02 05:35	25° \mathbb{M} 02'02
	2459 Jan 24 21:38	0° \mathbb{Y}			2463 Dec 09 10:29	0° \mathbb{J}
asc. node	2459 Feb 25 18:40	23° \mathbb{Y} 41'05		desc. node	2463 Dec 17 08:22	5° \mathbb{J} 29'34
	2459 Mar 06 09:47	0° \mathbb{B}			2464 Jan 20 23:05	0° \mathbb{Z}
	2459 Apr 17 09:22	0° \mathbb{I}			2464 Mar 01 23:32	0° \approx
	2459 May 31 04:22	0° \mathbb{S}			2464 Apr 10 22:47	0° \mathbb{H}
evening set	2459 Jun 17 02:32	11° \mathbb{S} 16'59			2464 May 20 14:52	0° \mathbb{Y}

	2464 Jun 30 05:01	0°♄			2469 Jul 07 00:48	0°♎		
	2464 Aug 13 03:26	0°♊		desc. node	2469 Aug 08 04:51	18°♎20'05		
	2464 Oct 10 14:27	0°♊			2469 Aug 27 02:04	0°♎		
asc. node	2464 Oct 17 15:52	2°♊07'42			2469 Oct 11 02:44	0°♄		
retrograde	2464 Nov 08 02:46	5°♊09'40			2469 Nov 21 15:14	0°♄		
	2464 Dec 05 05:38	30°♋♊			2469 Dec 30 22:30	0°♌		
min. Earth dist.	2464 Dec 09 19:01	28°♊19'51	0.54835 AU	evening set	2470 Jan 22 13:02	17°♌43'00		
opposition	2464 Dec 16 20:27	25°♊36'51	2°45'28		2470 Feb 07 02:11	0°♋		
greatest brilliancy	2464 Dec 15 19:07	26°♊01'17	-1.8m		2470 Mar 17 02:24	0°♑		
direct	2465 Jan 21 15:12	17°♊35'46						
	2465 Mar 13 07:23	0°♊		conjunction	2470 Mar 31 14:56	11°♑20'25	0°-43'-6	
	2465 May 12 15:48	0°♎		minimum elong	2470 Mar 31 18:11	11°♑26'43	0°43'04	
	2465 Jul 03 15:50	0°♎			2470 Apr 24 21:01	0°♄		
	2465 Aug 21 11:59	0°♎		max. Earth dist.	2470 May 22 13:48	20°♄45'55	2.41607 AU	
	2465 Oct 06 19:14	0°♎			2470 Jun 04 04:24	0°♊		
evening set	2465 Oct 09 03:15	1°♎33'19		morning rise	2470 Jun 07 08:31	2°♊18'00		
max. Earth dist.	2465 Oct 26 09:02	13°♎11'06	2.54709 AU	asc. node	2470 Jun 09 13:32	3°♊53'46		
desc. node	2465 Nov 03 07:15	18°♎36'45			2470 Jul 16 14:31	0°♊		
	2465 Nov 19 16:26	0°♄			2470 Aug 30 13:29	0°♎		
					2470 Oct 17 17:50	0°♎		
conjunction	2465 Nov 26 15:20	4°♄54'12	0°-13'-45		2470 Dec 11 00:33	0°♎		
minimum elong	2465 Nov 26 14:44	4°♄53'09	0°13'45	retrograde	2471 Feb 23 16:25	23°♎02'38		
behind sun begin	2465 Nov 26 03:21	4°♄33'01		opposition	2471 Apr 03 15:31	14°♎05'50	2°57'38	
behind sun end	2465 Nov 27 02:07	5°♄13'17		greatest brilliancy	2471 Apr 04 06:30	13°♎51'17	-1.4m	
	2465 Dec 31 09:13	0°♄		min. Earth dist.	2471 Apr 07 23:30	12°♎24'53	0.64557 AU	
morning rise	2466 Jan 17 21:55	13°♄01'23		direct	2471 May 15 03:00	4°♎04'21		
	2466 Feb 09 08:30	0°♌		desc. node	2471 Jun 26 03:29	13°♎11'26		
	2466 Mar 20 05:17	0°♋			2471 Jul 31 17:59	0°♎		
	2466 Apr 27 18:28	0°♑			2471 Sep 18 22:32	0°♄		
	2466 Jun 05 22:09	0°♄			2471 Oct 31 16:14	0°♄		
	2466 Jul 16 19:17	0°♊			2471 Dec 10 09:24	0°♌		
	2466 Aug 30 03:07	0°♊			2472 Jan 17 17:52	0°♋		
asc. node	2466 Sep 04 14:00	3°♊26'50			2472 Feb 24 23:13	0°♑		
	2466 Oct 22 00:59	0°♎		evening set	2472 Apr 03 00:57	29°♑14'31		
retrograde	2466 Dec 16 07:54	15°♎25'36			2472 Apr 04 01:04	0°♄		
min. Earth dist.	2467 Jan 22 01:40	6°♎49'52	0.64469 AU	asc. node	2472 Apr 26 11:57	16°♄44'09		
opposition	2467 Jan 25 11:33	5°♎27'59	4°26'30		2472 May 14 16:59	0°♊		
greatest brilliancy	2467 Jan 24 17:34	5°♎46'00	-1.4m					
	2467 Feb 09 10:03	30°♋♊		conjunction	2472 Jun 03 11:59	14°♊05'44	0°23'40	
direct	2467 Mar 05 13:07	26°♊14'32		minimum elong	2472 Jun 03 10:35	14°♊03'17	0°23'39	
	2467 Mar 31 22:07	0°♎			2472 Jun 26 09:24	0°♊		
	2467 Jun 09 23:13	0°♎		max. Earth dist.	2472 Jul 07 15:17	7°♊39'53	2.54825 AU	
	2467 Aug 01 09:52	0°♎		morning rise	2472 Jul 28 09:44	21°♊34'43		
	2467 Sep 17 19:46	0°♎			2472 Aug 10 04:31	0°♎		
desc. node	2467 Sep 21 05:56	2°♎15'35			2472 Sep 26 00:29	0°♎		
	2467 Oct 31 20:02	0°♄			2472 Nov 14 01:47	0°♎		
evening set	2467 Nov 23 11:29	16°♄12'58			2473 Jan 06 04:06	0°♎		
max. Earth dist.	2467 Dec 10 12:54	28°♄45'52	2.42048 AU		2473 Mar 24 20:42	0°♄		
	2467 Dec 12 04:46	0°♄		retrograde	2473 Apr 06 16:34	0°♄57'02		
					2473 Apr 19 00:50	30°♋♎		
conjunction	2468 Jan 19 10:27	29°♄03'45	0°-59'-43	opposition	2473 May 13 01:41	23°♎12'22	0°00'01	
minimum elong	2468 Jan 19 08:43	29°♄00'23	0°59'44	greatest brilliancy	2474 May 15 10:53	14°♊17'29	2.4m	
	2468 Jan 20 15:32	0°♌		desc. node	2473 May 13 01:51	23°♎12'13		
	2468 Feb 27 23:47	0°♋		min. Earth dist.	2473 May 20 18:40	20°♎23'31	0.55010 AU	
morning rise	2468 Mar 26 01:26	21°♋19'38		direct	2473 Jun 21 23:35	13°♎49'40		
	2468 Apr 06 02:35	0°♑			2473 Aug 16 09:14	0°♄		
	2468 May 14 21:08	0°♄			2473 Oct 05 05:52	0°♄		
	2468 Jun 24 04:03	0°♊			2473 Nov 16 03:58	0°♌		
asc. node	2468 Jul 22 13:52	20°♊11'50			2473 Dec 25 15:27	0°♋		
	2468 Aug 05 20:16	0°♊			2474 Feb 02 17:13	0°♑		
	2468 Sep 21 02:31	0°♎		asc. node	2474 Mar 14 11:05	29°♑53'56		
	2468 Nov 13 17:46	0°♎			2474 Mar 14 14:22	0°♄		
retrograde	2469 Jan 18 19:39	19°♎33'35			2474 Apr 25 01:00	0°♊		
opposition	2469 Feb 27 22:52	9°♎54'43	4°20'58	evening set	2474 May 29 23:59	24°♊17'35		
greatest brilliancy	2469 Feb 28 00:13	9°♎53'23	-1.2m		2474 Jun 07 09:30	0°♊		
min. Earth dist.	2469 Feb 28 10:21	9°♎43'18	0.67822 AU					
direct	2469 Apr 09 22:30	0°♎03'16		conjunction	2474 Jul 20 19:26	28°♊50'55	1°01'58	

minimum elong	2474 Jul 20 18:19	28° $\overline{54}$ 9'06	1°01'59	retrograde	2479 Oct 22 16:32	16° $\overline{\text{II}}$ 02'21	
	2474 Jul 22 13:45	0° Ω		asc. node	2479 Nov 04 07:57	14° $\overline{\text{II}}$ 51'44	
max. Earth dist.	2474 Aug 05 03:03	8° Ω 48'19	2.63880 AU	min. Earth dist.	2479 Nov 21 03:27	10° $\overline{\text{II}}$ 03'24	0.49717 AU
morning rise	2474 Sep 06 08:38	29° Ω 29'08		opposition	2479 Nov 29 04:41	7° $\overline{\text{II}}$ 05'42	1°18'34
	2474 Sep 07 04:01	0° $\overline{\text{II}}$		greatest brilliancy	2479 Nov 28 13:19	7° $\overline{\text{II}}$ 19'52	-2.1m
	2474 Oct 24 16:42	0° $\overline{\text{A}}$			2479 Dec 27 15:16	30° $\overline{\text{R}}$ 8	
	2474 Dec 12 00:13	0° $\overline{\text{M}}$		direct	2480 Jan 02 05:59	29° $\overline{\text{B}}$ 47'30	
	2475 Jan 30 19:23	0° $\overline{\text{X}}$			2480 Jan 07 23:20	0° $\overline{\text{II}}$	
	2475 Mar 26 07:20	0° $\overline{\text{C}}$			2480 Mar 29 08:58	0° $\overline{\text{C}}$	
desc. node	2475 Mar 31 01:34	2° $\overline{\text{C}}$ 20'31			2480 May 22 01:45	0° Ω	
retrograde	2475 Jun 06 09:59	22° $\overline{\text{C}}$ 28'09			2480 Jul 11 07:54	0° $\overline{\text{II}}$	
opposition	2475 Jul 08 08:23	16° $\overline{\text{C}}$ 43'51	-5°-3'-2		2480 Aug 28 12:51	0° $\overline{\text{A}}$	
greatest brilliancy	2475 Jul 10 01:30	16° $\overline{\text{C}}$ 12'34	-2.5m	evening set	2480 Sep 23 19:40	16° $\overline{\text{A}}$ 54'56	
min. Earth dist.	2475 Jul 15 14:55	14° $\overline{\text{C}}$ 32'05	0.41952 AU		2480 Oct 13 16:24	0° $\overline{\text{M}}$	
direct	2475 Aug 11 14:26	9° $\overline{\text{C}}$ 56'16		max. Earth dist.	2480 Oct 14 15:25	0° $\overline{\text{M}}$ 38'19	2.58781 AU
	2475 Oct 10 21:14	0° \approx					
	2475 Nov 27 00:18	0° $\overline{\text{X}}$		conjunction	2480 Nov 09 16:19	18° $\overline{\text{M}}$ 14'03	0°06'01
	2476 Jan 08 15:14	0° $\overline{\text{Y}}$		minimum elong	2480 Nov 09 16:33	18° $\overline{\text{M}}$ 14'27	0°06'00
asc. node	2476 Jan 30 09:51	15° $\overline{\text{Y}}$ 30'04		behind sun begin	2480 Nov 08 21:41	17° $\overline{\text{M}}$ 42'08	
	2476 Feb 19 21:48	0° $\overline{\text{B}}$		behind sun end	2480 Nov 10 11:26	18° $\overline{\text{M}}$ 46'48	
	2476 Apr 03 03:59	0° $\overline{\text{II}}$		desc. node	2480 Nov 19 22:19	25° $\overline{\text{M}}$ 17'58	
	2476 May 17 21:19	0° $\overline{\text{C}}$			2480 Nov 26 16:26	0° $\overline{\text{X}}$	
evening set	2476 Jul 02 23:22	0° Ω		morning rise	2480 Dec 28 14:01	22° $\overline{\text{X}}$ 40'38	
	2476 Jul 11 16:25	5° Ω 35'39			2481 Jan 07 15:48	0° $\overline{\text{C}}$	
	2476 Aug 18 22:04	0° $\overline{\text{II}}$			2481 Feb 16 23:29	0° \approx	
					2481 Mar 28 04:44	0° $\overline{\text{X}}$	
conjunction	2476 Aug 27 13:42	5° $\overline{\text{II}}$ 30'17	1°07'21		2481 May 06 01:35	0° $\overline{\text{Y}}$	
minimum elong	2476 Aug 27 14:08	5° $\overline{\text{II}}$ 30'59	1°07'21		2481 Jun 14 13:32	0° $\overline{\text{B}}$	
max. Earth dist.	2476 Aug 27 17:29	5° $\overline{\text{II}}$ 36'18	2.67586 AU		2481 Jul 26 01:13	0° $\overline{\text{II}}$	
	2476 Oct 05 00:48	0° $\overline{\text{A}}$			2481 Sep 10 04:48	0° $\overline{\text{C}}$	
morning rise	2476 Oct 11 03:08	3° $\overline{\text{A}}$ 53'44		asc. node	2481 Sep 21 07:54	6° $\overline{\text{C}}$ 25'25	
	2476 Nov 20 17:53	0° $\overline{\text{M}}$			2481 Nov 19 10:28	0° Ω	
	2477 Jan 05 19:37	0° $\overline{\text{X}}$		retrograde	2481 Dec 02 06:25	1° Ω 04'19	
desc. node	2477 Feb 15 01:28	26° $\overline{\text{X}}$ 30'53			2481 Dec 14 15:05	30° $\overline{\text{R}}$ 8	
	2477 Feb 20 07:56	0° $\overline{\text{C}}$		min. Earth dist.	2482 Jan 06 03:31	23° $\overline{\text{C}}$ 05'52	0.61368 AU
	2477 Apr 06 17:01	0° \approx		greatest brilliancy	2482 Jan 10 01:29	21° $\overline{\text{C}}$ 32'34	-1.5m
	2477 May 23 06:27	0° $\overline{\text{X}}$		opposition	2482 Jan 11 01:25	21° $\overline{\text{C}}$ 08'46	4°03'40
	2477 Jul 17 07:47	0° $\overline{\text{Y}}$		direct	2482 Feb 17 23:53	12° $\overline{\text{C}}$ 18'34	
retrograde	2477 Aug 24 23:13	9° $\overline{\text{Y}}$ 00'28			2482 Apr 22 17:18	0° Ω	
min. Earth dist.	2477 Sep 20 22:12	4° $\overline{\text{Y}}$ 34'00	0.38147 AU		2482 Jun 19 15:06	0° $\overline{\text{II}}$	
opposition	2477 Sep 25 11:41	3° $\overline{\text{Y}}$ 17'19	-5°-7'-33		2482 Aug 09 04:43	0° $\overline{\text{A}}$	
greatest brilliancy	2477 Sep 24 14:32	3° $\overline{\text{Y}}$ 32'10	-2.8m		2482 Sep 25 01:15	0° $\overline{\text{M}}$	
	2477 Oct 08 10:28	30° $\overline{\text{R}}$ 8		desc. node	2482 Oct 07 21:13	8° $\overline{\text{M}}$ 34'26	
direct	2477 Oct 25 02:07	28° $\overline{\text{X}}$ 12'31		evening set	2482 Nov 04 12:21	27° $\overline{\text{M}}$ 34'28	
	2477 Nov 10 22:12	0° $\overline{\text{Y}}$			2482 Nov 07 23:12	0° $\overline{\text{X}}$	
asc. node	2477 Dec 17 08:03	13° $\overline{\text{Y}}$ 05'44		max. Earth dist.	2482 Nov 18 17:32	7° $\overline{\text{X}}$ 38'12	2.47191 AU
	2478 Jan 18 08:09	0° $\overline{\text{B}}$			2482 Dec 19 10:13	0° $\overline{\text{C}}$	
	2478 Mar 09 09:27	0° $\overline{\text{II}}$					
	2478 Apr 26 14:03	0° $\overline{\text{C}}$		conjunction	2482 Dec 27 07:19	5° $\overline{\text{C}}$ 52'18	0°-44'-49
	2478 Jun 13 15:05	0° Ω		minimum elong	2482 Dec 27 05:22	5° $\overline{\text{C}}$ 48'40	0°44'49
	2478 Jul 31 13:35	0° $\overline{\text{II}}$			2483 Jan 28 01:03	0° \approx	
evening set	2478 Aug 18 14:01	11° $\overline{\text{II}}$ 21'23		morning rise	2483 Feb 25 15:50	22° \approx 14'39	
	2478 Sep 16 21:09	0° $\overline{\text{A}}$			2483 Mar 07 13:19	0° $\overline{\text{X}}$	
max. Earth dist.	2478 Sep 20 02:48	2° $\overline{\text{A}}$ 04'32	2.65830 AU		2483 Apr 14 19:05	0° $\overline{\text{Y}}$	
				greatest brilliancy	2483 Apr 24 21:52	7° $\overline{\text{Y}}$ 52'59	1.2m
conjunction	2478 Oct 02 22:43	10° $\overline{\text{A}}$ 20'50	0°46'57		2483 May 23 15:46	0° $\overline{\text{B}}$	
minimum elong	2478 Oct 02 23:50	10° $\overline{\text{A}}$ 22'38	0°46'55		2483 Jul 03 01:29	0° $\overline{\text{II}}$	
	2478 Nov 02 00:14	0° $\overline{\text{M}}$		asc. node	2483 Aug 09 06:01	26° $\overline{\text{II}}$ 04'19	
morning rise	2478 Nov 16 16:48	9° $\overline{\text{M}}$ 45'34			2483 Aug 15 02:00	0° $\overline{\text{C}}$	
	2478 Dec 16 15:11	0° $\overline{\text{X}}$			2483 Oct 01 14:44	0° Ω	
desc. node	2479 Jan 02 23:46	11° $\overline{\text{X}}$ 57'56			2483 Dec 02 02:11	0° $\overline{\text{II}}$	
	2479 Jan 28 16:56	0° $\overline{\text{C}}$		retrograde	2484 Jan 06 12:34	6° $\overline{\text{II}}$ 47'52	
	2479 Mar 11 10:07	0° \approx			2484 Feb 08 02:35	30° $\overline{\text{R}}$ 8	
	2479 Apr 21 04:17	0° $\overline{\text{X}}$		opposition	2484 Feb 15 18:59	26° Ω 58'44	4°32'45
	2479 May 31 19:01	0° $\overline{\text{Y}}$		min. Earth dist.	2484 Feb 14 17:57	27° Ω 23'45	0.67285 AU
	2479 Jul 12 22:41	0° $\overline{\text{B}}$		greatest brilliancy	2484 Feb 15 12:42	27° Ω 05'01	-1.2m
	2479 Aug 30 19:17	0° $\overline{\text{II}}$		direct	2484 Mar 27 04:04	17° Ω 19'01	

	2484 May 18 14:27	0°♎			2489 May 02 12:37	0°♊	
	2484 Jul 17 02:29	0°♊		evening set	2489 May 09 21:32	5°♊14'35	
desc. node	2484 Aug 24 20:09	23°♊22'27			2489 Jun 14 13:02	0°♊	
	2484 Sep 04 05:01	0°♋					
	2484 Oct 18 17:10	0°♌		conjunction	2489 Jul 03 21:09	13°♊03'16	0°51'28
	2484 Nov 29 03:01	0°♍		minimum elong	2489 Jul 03 19:32	13°♊00'34	0°51'27
evening set	2484 Dec 27 09:20	21°♍26'27		max. Earth dist.	2489 Jul 25 23:02	27°♊40'41	2.60960 AU
	2485 Jan 07 10:54	0°♎			2489 Jul 29 12:02	0°♋	
	2485 Feb 14 15:33	0°♏		morning rise	2489 Aug 22 15:47	15°♋40'09	
					2489 Sep 14 02:15	0°♎	
conjunction	2485 Mar 02 05:42	12°♏19'44	-1°-1'-1		2489 Nov 01 00:25	0°♊	
minimum elong	2485 Mar 02 07:48	12°♏23'53	1°01'02		2489 Dec 20 12:59	0°♋	
	2485 Mar 24 15:44	0°♐			2490 Feb 11 18:21	0°♌	
max. Earth dist.	2485 Mar 25 14:33	0°♐44'46	2.37194 AU	desc. node	2490 Apr 16 17:01	26°♌46'03	
	2485 May 02 09:07	0°♑		retrograde	2490 May 10 16:03	29°♌55'49	
morning rise	2485 May 12 04:08	7°♑25'39		opposition	2490 Jun 13 11:15	23°♌18'53	-2°-53'-24
	2485 Jun 11 14:46	0°♊		greatest brilliancy	2490 Jun 14 17:54	22°♌53'09	-2.2m
asc. node	2485 Jun 26 04:58	10°♊31'04		min. Earth dist.	2490 Jun 21 21:28	20°♌29'53	0.47015 AU
	2485 Jul 24 00:44	0°♋		direct	2490 Jul 20 14:36	15°♌11'52	
	2485 Sep 07 06:22	0°♋			2490 Sep 09 12:31	0°♍	
	2485 Oct 26 15:09	0°♎			2490 Oct 28 14:38	0°♎	
	2485 Dec 26 04:03	0°♏			2490 Dec 09 12:33	0°♏	
retrograde	2486 Feb 09 06:34	9°♏59'44			2491 Jan 19 00:15	0°♐	
opposition	2486 Mar 20 20:07	0°♏43'49	3°39'14	asc. node	2491 Feb 16 01:21	20°♐37'56	
greatest brilliancy	2486 Mar 21 07:24	0°♏32'43	-1.3m		2491 Feb 28 23:02	0°♑	
	2486 Mar 22 16:41	30°♑			2491 Apr 12 06:41	0°♊	
min. Earth dist.	2486 Mar 23 16:24	29°♑36'43	0.66613 AU		2491 May 26 07:43	0°♋	
direct	2486 May 01 07:32	20°♑42'23		evening set	2491 Jun 26 18:37	20°♋46'11	
	2486 Jun 13 08:18	0°♊			2491 Jul 10 23:06	0°♋	
desc. node	2486 Jul 12 18:42	13°♊16'08					
	2486 Aug 11 23:20	0°♋		conjunction	2491 Aug 14 02:37	21°♋57'51	1°08'40
	2486 Sep 27 19:18	0°♌		minimum elong	2491 Aug 14 02:31	21°♋57'40	1°08'41
	2486 Nov 08 21:07	0°♍		max. Earth dist.	2491 Aug 19 20:40	25°♋38'16	2.66786 AU
	2486 Dec 18 08:35	0°♎			2491 Aug 26 16:49	0°♎	
	2487 Jan 25 13:59	0°♏		morning rise	2491 Sep 28 10:09	20°♎48'42	
	2487 Mar 04 16:09	0°♐			2491 Oct 12 21:17	0°♏	
evening set	2487 Mar 07 21:45	2°♐31'35			2491 Nov 29 01:20	0°♐	
	2487 Apr 12 13:56	0°♑			2492 Jan 15 03:17	0°♌	
					2492 Mar 02 13:55	0°♍	
conjunction	2487 May 12 17:16	22°♑28'32	0°00'-58	desc. node	2492 Mar 03 16:08	0°♍40'57	
minimum elong	2487 May 12 17:22	22°♑28'43	0°00'59		2492 Apr 20 20:55	0°♎	
behind sun begin	2487 May 11 15:08	21°♑40'38			2492 Jun 19 14:50	0°♏	
behind sun end	2487 May 13 19:36	23°♑16'44		retrograde	2492 Jul 24 20:30	7°♏08'02	
asc. node	2487 May 14 04:59	23°♑33'54		opposition	2492 Aug 23 23:29	2°♏10'14	-6°-46'-53
	2487 May 23 01:07	0°♊		greatest brilliancy	2492 Aug 24 08:24	2°♏04'18	-2.9m
max. Earth dist.	2487 Jun 24 09:34	22°♊58'22	2.49960 AU	min. Earth dist.	2492 Aug 24 18:59	1°♏57'16	0.37322 AU
	2487 Jul 04 13:18	0°♋			2492 Sep 01 10:35	30°♏	
morning rise	2487 Jul 11 05:08	4°♋33'42		direct	2492 Sep 22 23:11	27°♏09'48	
	2487 Aug 18 07:30	0°♋			2492 Oct 13 21:13	0°♏	
	2487 Oct 04 10:55	0°♎			2492 Dec 16 03:33	0°♐	
	2487 Nov 23 17:41	0°♏		asc. node	2493 Jan 03 01:26	11°♐01'54	
	2488 Jan 20 20:55	0°♐			2493 Feb 01 15:29	0°♑	
retrograde	2488 Mar 19 14:03	15°♐25'28			2493 Mar 19 14:30	0°♊	
opposition	2488 Apr 26 04:34	7°♐07'41	1°22'48		2493 May 04 22:36	0°♋	
greatest brilliancy	2488 Apr 26 16:46	6°♐56'11	-1.6m		2493 Jun 21 00:13	0°♋	
min. Earth dist.	2488 May 02 17:19	4°♐39'56	0.59425 AU	evening set	2493 Aug 04 04:51	27°♋56'24	
	2488 May 17 00:05	30°♑			2493 Aug 07 11:01	0°♎	
desc. node	2488 May 29 18:01	27°♑41'50		max. Earth dist.	2493 Sep 10 22:48	21°♎53'35	2.67165 AU
direct	2488 Jun 06 01:07	27°♑20'42					
	2488 Jun 26 23:51	0°♋		conjunction	2493 Sep 18 19:44	26°♎55'17	0°57'33
	2488 Aug 31 15:00	0°♌		minimum elong	2493 Sep 18 20:44	26°♎56'53	0°57'33
	2488 Oct 15 21:49	0°♍			2493 Sep 23 15:09	0°♏	
	2488 Nov 25 13:06	0°♎		morning rise	2493 Nov 02 02:54	25°♏32'44	
	2489 Jan 03 09:26	0°♏			2493 Nov 08 22:04	0°♐	
	2489 Feb 11 00:06	0°♐			2493 Dec 23 23:35	0°♌	
	2489 Mar 22 11:17	0°♑		desc. node	2494 Jan 19 15:06	18°♌09'23	
asc. node	2489 Mar 31 02:42	6°♑25'34			2494 Feb 05 18:28	0°♍	

	2494 Mar 20 10:43	0°♊		desc. node	2499 Sep 11 12:03	29°♊05'36	
	2494 May 01 10:23	0°♋			2499 Sep 12 21:21	0°♌	
	2494 Jun 12 19:59	0°♌			2499 Oct 27 01:49	0°♍	
	2494 Jul 29 01:03	0°♎		evening set	2499 Dec 05 07:22	28°♍23'47	
retrograde	2494 Oct 02 17:11	23°♎27'35			2499 Dec 07 11:04	0°♐	
min. Earth dist.	2494 Oct 30 05:22	18°♎18'37	0.44466 AU	max. Earth dist.	2499 Dec 29 07:41	16°♐29'40	2.39368 AU
opposition	2494 Nov 07 08:58	15°♏31'59	0°-48'-29		2500 Jan 15 20:49	0°♑	
greatest brilliancy	2494 Nov 07 00:03	15°♏39'36	-2.4m				
asc. node	2494 Nov 21 00:47	11°♏24'26		conjunction	2500 Feb 03 01:41	14°♑11'49	-1°-4'-10
direct	2494 Dec 09 11:50	9°♏05'52		minimum elong	2500 Feb 03 00:56	14°♑10'20	1°04'11
	2495 Feb 15 02:04	0°♐			2500 Feb 23 03:43	0°♋	
	2495 Apr 11 00:09	0°♑			2500 Apr 02 05:11	0°♌	
	2495 May 31 14:08	0°♒		morning rise	2500 Apr 13 11:57	8°♌49'21	
	2495 Jul 19 16:25	0°♓			2500 May 10 22:42	0°♍	
	2495 Sep 05 10:39	0°♈			2500 Jun 20 04:15	0°♎	
evening set	2495 Sep 10 02:52	2°♈59'25		asc. node	2500 Jul 13 21:20	16°♎58'03	
max. Earth dist.	2495 Oct 05 05:17	19°♈14'32	2.62148 AU		2500 Aug 01 16:25	0°♏	
	2495 Oct 21 12:52	0°♉			2500 Sep 16 10:07	0°♐	
					2500 Nov 06 20:37	0°♑	
conjunction	2495 Oct 25 23:53	2°♌58'07	0°23'55	retrograde	2501 Jan 27 12:35	27°♑16'05	
minimum elong	2495 Oct 26 00:40	2°♌59'26	0°23'54	opposition	2501 Mar 08 11:58	17°♑44'31	4°08'46
	2495 Dec 04 17:34	0°♒		greatest brilliancy	2501 Mar 08 17:15	17°♑39'17	-1.2m
desc. node	2495 Dec 07 13:41	1°♒58'19		min. Earth dist.	2501 Mar 09 19:48	17°♑12'57	0.67685 AU
morning rise	2495 Dec 11 15:50	4°♒49'25		direct	2501 Apr 18 17:05	7°♑48'13	
	2496 Jan 16 01:34	0°♐			2501 Jun 30 09:00	0°♈	
	2496 Feb 25 19:46	0°♑		desc. node	2501 Jul 30 11:09	16°♈13'33	
	2496 Apr 05 11:52	0°♋			2501 Aug 22 10:49	0°♌	
	2496 May 14 19:21	0°♌			2501 Oct 07 00:48	0°♍	
	2496 Jun 23 20:42	0°♎			2501 Nov 17 17:47	0°♐	
	2496 Aug 05 12:06	0°♏			2501 Dec 27 02:22	0°♑	
	2496 Sep 25 02:09	0°♑			2502 Feb 03 06:19	0°♋	
asc. node	2496 Oct 07 23:11	5°♑54'20		evening set	2502 Feb 08 07:50	4°♋00'25	
retrograde	2496 Nov 17 06:46	15°♑23'23			2502 Mar 13 06:28	0°♌	
min. Earth dist.	2496 Dec 20 03:23	8°♑07'23	0.57386 AU				
greatest brilliancy	2496 Dec 25 08:55	6°♑04'48	-1.7m	conjunction	2502 Apr 17 16:04	27°♌25'27	0°-28'-25
opposition	2496 Dec 26 11:28	5°♑38'46	3°21'27	minimum elong	2502 Apr 17 18:28	27°♌30'03	0°28'24
	2497 Jan 11 21:55	30°♒♐			2502 Apr 21 01:13	0°♍	
direct	2497 Feb 01 02:08	27°♐17'55		asc. node	2502 May 31 20:02	0°♐20'14	
	2497 Feb 22 19:31	0°♑			2502 May 31 08:54	0°♎	
	2497 May 05 16:21	0°♒		max. Earth dist.	2502 Jun 07 00:40	4°♐49'04	2.44615 AU
	2497 Jun 28 05:40	0°♓		morning rise	2502 Jun 21 13:28	15°♐11'45	
	2497 Aug 16 14:40	0°♈			2502 Jul 12 18:24	0°♏	
	2497 Oct 02 02:33	0°♉			2502 Aug 26 14:03	0°♐	
evening set	2497 Oct 18 08:38	10°♐54'28			2502 Oct 13 06:03	0°♑	
desc. node	2497 Oct 24 12:25	15°♐06'03			2502 Dec 04 13:11	0°♈	
max. Earth dist.	2497 Nov 03 01:53	21°♐40'41	2.52163 AU		2503 Feb 18 17:18	0°♌	
	2497 Nov 15 00:22	0°♍		retrograde	2503 Mar 05 08:41	1°♌13'59	
					2503 Mar 19 08:40	30°♒♈	
conjunction	2497 Dec 07 02:53	15°♍44'42	0°-25'-29	opposition	2503 Apr 12 21:48	22°♈29'44	2°27'04
minimum elong	2497 Dec 07 01:44	15°♍42'38	0°25'29	greatest brilliancy	2503 Apr 13 13:15	22°♈14'52	-1.4m
	2497 Dec 26 15:29	0°♐		min. Earth dist.	2503 Apr 18 01:12	20°♈30'58	0.63001 AU
morning rise	2498 Jan 30 20:26	26°♐26'49		direct	2503 May 24 06:22	12°♈30'58	
	2498 Feb 04 12:00	0°♑		desc. node	2503 Jun 17 09:07	15°♈52'19	
	2498 Mar 15 05:52	0°♋			2503 Jul 23 20:22	0°♌	
	2498 Apr 22 16:01	0°♌			2503 Sep 13 18:31	0°♍	
	2498 May 31 16:15	0°♎			2503 Oct 27 05:02	0°♐	
	2498 Jul 11 07:20	0°♏			2503 Dec 06 04:47	0°♑	
	2498 Aug 23 22:47	0°♑			2504 Jan 13 16:47	0°♋	
asc. node	2498 Aug 25 22:55	1°♑18'25			2504 Feb 21 00:30	0°♌	
	2498 Oct 12 22:24	0°♒			2504 Mar 31 04:26	0°♍	
retrograde	2498 Dec 24 03:36	23°♒40'26		asc. node	2504 Apr 17 20:03	13°♍09'45	
min. Earth dist.	2499 Jan 30 19:37	14°♒46'07	0.65744 AU	evening set	2504 Apr 18 03:15	13°♍23'01	
opposition	2499 Feb 02 09:07	13°♒44'33	4°32'44		2504 May 10 22:24	0°♎	
greatest brilliancy	2499 Feb 01 19:07	13°♒58'34	-1.3m				
direct	2499 Mar 13 22:51	4°♒20'27		conjunction	2504 Jun 16 03:39	25°♐30'57	0°35'27
	2499 Jun 02 16:53	0°♓		minimum elong	2504 Jun 16 01:57	25°♐28'01	0°35'26
	2499 Jul 26 22:37	0°♈			2504 Jun 22 16:10	0°♏	

max. Earth dist.	2504 Jul 15 18:14	15°♄37'35	2.57201 AU	min. Earth dist.	2509 Oct 06 17:39	21°♊54'55	0.39881 AU
	2504 Aug 06 11:22	0°♌		greatest brilliancy	2509 Oct 12 05:04	20°♊15'44	-2.7m
morning rise	2504 Aug 07 23:30	0°♌59'11		opposition	2509 Oct 13 05:30	19°♊57'09	-3°-33'-38
	2504 Sep 22 03:39	0°♍		direct	2509 Nov 12 14:49	14°♊27'21	
	2504 Nov 09 16:23	0°♎		asc. node	2509 Dec 08 16:53	18°♊34'21	
	2504 Dec 31 02:01	0°♏			2510 Jan 06 19:17	0°♋	
	2505 Mar 01 23:44	0°♐			2510 Mar 03 00:07	0°♌	
retrograde	2505 Apr 19 02:14	11°♐01'42			2510 Apr 21 18:31	0°♍	
desc. node	2505 May 04 08:03	9°♐33'53			2510 Jun 09 12:49	0°♎	
opposition	2505 May 24 14:56	3°♐38'54	0°-57'-7		2510 Jul 27 19:47	0°♏	
greatest brilliancy	2505 May 25 01:38	3°♐29'22	-2.0m	evening set	2510 Aug 27 18:06	19°♏28'13	
min. Earth dist.	2505 Jun 01 18:59	0°♐44'08	0.52263 AU		2510 Sep 13 06:43	0°♑	
	2505 Jun 03 22:24	30°♑		max. Earth dist.	2510 Sep 26 12:35	8°♑30'49	2.64733 AU
direct	2505 Jul 02 17:58	24°♑36'54					
	2505 Aug 01 09:22	0°♒		conjunction	2510 Oct 12 04:12	18°♑40'43	0°39'19
	2505 Sep 28 09:57	0°♓		minimum elong	2510 Oct 12 05:17	18°♑42'27	0°39'18
	2505 Nov 10 17:36	0°♐			2510 Oct 29 09:30	0°♒	
	2505 Dec 20 19:29	0°♑		morning rise	2510 Nov 26 10:26	18°♒47'03	
	2506 Jan 29 06:07	0°♒			2510 Dec 12 20:31	0°♓	
asc. node	2506 Mar 05 18:51	26°♒35'18		desc. node	2510 Dec 25 05:25	8°♓33'25	
	2506 Mar 10 10:04	0°♋			2511 Jan 24 15:28	0°♑	
	2506 Apr 21 02:24	0°♌			2511 Mar 06 23:22	0°♒	
	2506 Jun 03 15:09	0°♍			2511 Apr 16 06:40	0°♑	
evening set	2506 Jun 10 12:23	4°♍37'49			2511 May 26 07:09	0°♒	
	2506 Jul 18 22:09	0°♎			2511 Jul 06 09:29	0°♋	
					2511 Aug 20 15:42	0°♌	
conjunction	2506 Jul 30 21:50	7°♌47'03	1°05'45	asc. node	2511 Oct 26 16:10	27°♌19'37	
minimum elong	2506 Jul 30 21:05	7°♌45'50	1°05'46	retrograde	2511 Nov 02 21:04	27°♌41'36	
max. Earth dist.	2506 Aug 11 17:19	15°♌24'11	2.65133 AU	min. Earth dist.	2511 Dec 03 13:12	21°♌14'00	0.52610 AU
	2506 Sep 03 12:32	0°♍		greatest brilliancy	2511 Dec 10 03:59	18°♌43'59	-2.0m
morning rise	2506 Sep 15 12:17	7°♍37'41		opposition	2511 Dec 11 02:38	18°♌22'28	2°13'03
	2506 Oct 20 21:10	0°♎		direct	2512 Jan 15 03:54	10°♌39'13	
	2506 Dec 07 16:53	0°♏			2512 Mar 21 03:41	0°♍	
	2507 Jan 25 06:46	0°♐			2512 May 17 00:13	0°♎	
	2507 Mar 17 03:47	0°♑			2512 Jul 07 05:00	0°♏	
desc. node	2507 Mar 22 07:38	2°♑52'58			2512 Aug 24 18:57	0°♑	
	2507 May 17 23:10	0°♒		evening set	2512 Oct 03 10:37	25°♑36'32	
retrograde	2507 Jun 24 12:16	7°♒31'19			2512 Oct 10 01:43	0°♒	
opposition	2507 Jul 25 08:10	2°♒14'08	-6°-6'-41	max. Earth dist.	2512 Oct 22 04:37	8°♒06'58	2.56621 AU
greatest brilliancy	2507 Jul 26 21:55	1°♒47'19	-2.7m	desc. node	2512 Nov 11 04:45	21°♒45'40	
min. Earth dist.	2507 Jul 31 01:41	0°♒36'50	0.39648 AU				
	2507 Aug 02 07:22	30°♒		conjunction	2512 Nov 20 02:53	27°♒57'05	0°-5'-16
direct	2507 Aug 26 20:15	26°♒13'59		minimum elong	2512 Nov 20 02:38	27°♒56'40	0°05'17
	2507 Sep 19 19:23	0°♓		behind sun begin	2512 Nov 19 06:56	27°♒22'21	
	2507 Nov 18 06:21	0°♑		behind sun end	2512 Nov 20 22:21	28°♒31'01	
	2508 Jan 02 07:12	0°♒			2512 Nov 23 01:17	0°♓	
asc. node	2508 Jan 21 17:01	13°♒24'00			2513 Jan 03 21:58	0°♑	
	2508 Feb 14 17:12	0°♋		morning rise	2513 Jan 09 17:30	4°♑16'34	
	2508 Mar 29 16:10	0°♌			2513 Feb 13 01:27	0°♒	
	2508 May 13 20:12	0°♍			2513 Mar 24 02:10	0°♑	
	2508 Jun 29 05:07	0°♎			2513 May 01 18:15	0°♒	
evening set	2508 Jul 21 09:55	14°♎10'27			2513 Jun 10 00:16	0°♋	
	2508 Aug 15 07:13	0°♏			2513 Jul 21 01:20	0°♌	
max. Earth dist.	2508 Sep 02 21:58	11°♏49'54	2.67661 AU		2513 Sep 03 21:16	0°♍	
				asc. node	2513 Sep 12 14:04	5°♍20'32	
conjunction	2508 Sep 05 17:24	13°♏37'09	1°04'47		2513 Oct 29 22:49	0°♎	
minimum elong	2508 Sep 05 18:06	13°♏38'16	1°04'47	retrograde	2513 Dec 11 10:45	9°♎53'41	
	2508 Oct 01 09:51	0°♑		min. Earth dist.	2514 Jan 16 09:08	1°♎33'31	0.63212 AU
morning rise	2508 Oct 20 01:39	11°♑58'02		opposition	2514 Jan 20 10:44	29°♑56'03	4°19'10
	2508 Nov 16 22:46	0°♒		greatest brilliancy	2514 Jan 19 13:50	0°♎16'57	-1.4m
	2509 Jan 01 14:38	0°♓			2514 Jan 20 06:47	30°♒	
desc. node	2509 Feb 06 06:21	23°♓50'14		direct	2514 Feb 28 00:23	20°♑52'12	
	2509 Feb 15 09:39	0°♑			2514 Apr 12 05:01	0°♎	
	2509 Mar 31 13:33	0°♒			2514 Jun 14 09:30	0°♏	
	2509 May 14 19:17	0°♑			2514 Aug 05 00:35	0°♑	
	2509 Jun 30 17:00	0°♒			2514 Sep 21 06:01	0°♓	
retrograde	2509 Sep 10 04:49	26°♒27'10		desc. node	2514 Sep 29 03:24	5°♒14'02	

	2514 Nov 04 06:40	0°♊		behind sun begin	2519 May 26 10:16	5°♊09'36	
evening set	2514 Nov 15 23:36	8°♊18'10		behind sun end	2519 May 27 11:45	5°♊55'16	
max. Earth dist.	2514 Nov 30 22:30	19°♊06'20	2.44350 AU		2519 Jun 30 19:20	0°♊	
	2514 Dec 15 17:40	0°♊		max. Earth dist.	2519 Jul 03 21:03	2°♊06'31	2.52728 AU
				morning rise	2519 Jul 22 19:49	14°♊57'14	
conjunction	2515 Jan 09 22:15	18°♊58'23	0°-54'-10		2519 Aug 14 12:35	0°♊	
minimum elong	2515 Jan 09 20:13	18°♊54'32	0°54'10		2519 Sep 30 09:58	0°♊	
	2515 Jan 24 06:58	0°♊			2519 Nov 18 20:55	0°♊	
greatest brilliancy	2515 Feb 21 19:51	22°♊13'43	1.2m		2520 Jan 12 12:38	0°♊	
	2515 Mar 03 17:21	0°♊		retrograde	2520 Mar 30 15:15	24°♊32'47	
morning rise	2515 Mar 14 19:32	8°♊43'43		opposition	2520 May 06 13:59	16°♊32'24	0°37'18
	2515 Apr 10 21:10	0°♊		greatest brilliancy	2520 May 06 20:33	16°♊26'19	-1.7m
	2515 May 19 15:41	0°♊		min. Earth dist.	2520 May 13 18:53	13°♊51'52	0.57089 AU
	2515 Jun 28 22:23	0°♊		desc. node	2520 May 20 23:11	11°♊22'35	
asc. node	2515 Jul 31 13:44	23°♊06'46		direct	2520 Jun 15 23:19	6°♊56'47	
	2515 Aug 10 15:39	0°♊			2520 Aug 24 00:33	0°♊	
	2515 Sep 26 06:12	0°♊			2520 Oct 10 11:59	0°♊	
	2515 Nov 20 21:39	0°♊			2520 Nov 20 19:28	0°♊	
retrograde	2516 Jan 15 04:11	14°♊37'52			2520 Dec 29 23:42	0°♊	
opposition	2516 Feb 24 09:04	4°♊54'00	4°27'12		2521 Feb 06 19:39	0°♊	
greatest brilliancy	2516 Feb 24 07:07	4°♊55'57	-1.2m		2521 Mar 18 10:59	0°♊	
min. Earth dist.	2516 Feb 24 04:33	4°♊58'30	0.67712 AU	asc. node	2521 Mar 22 10:46	2°♊57'47	
	2516 Mar 08 07:42	30°♊			2521 Apr 28 16:03	0°♊	
direct	2516 Apr 05 02:21	25°♊07'10		evening set	2521 May 22 14:06	16°♊48'12	
	2516 May 05 14:39	0°♊			2521 Jun 10 19:25	0°♊	
	2516 Jul 11 16:32	0°♊					
desc. node	2516 Aug 16 01:58	20°♊42'06		conjunction	2521 Jul 14 17:08	22°♊41'35	0°58'11
	2516 Aug 30 22:05	0°♊		minimum elong	2521 Jul 14 15:46	22°♊39'21	0°58'10
	2516 Oct 14 18:41	0°♊			2521 Jul 25 20:10	0°♊	
	2516 Nov 25 07:18	0°♊		max. Earth dist.	2521 Aug 01 22:42	4°♊38'10	2.62677 AU
evening set	2517 Jan 03 15:34	0°♊		morning rise	2521 Sep 01 04:05	24°♊07'16	
	2517 Jan 11 18:20	6°♊19'31			2521 Sep 10 09:21	0°♊	
	2517 Feb 10 20:02	0°♊			2521 Oct 28 01:16	0°♊	
					2521 Dec 15 19:34	0°♊	
conjunction	2517 Mar 19 19:15	29°♊11'26	0°-52'-25		2522 Feb 04 18:59	0°♊	
minimum elong	2517 Mar 19 22:27	29°♊17'44	0°52'25		2522 Apr 04 22:01	0°♊	
	2517 Mar 20 19:59	0°♊		desc. node	2522 Apr 07 22:35	1°♊14'50	
	2517 Apr 28 13:11	0°♊		retrograde	2522 May 26 03:47	12°♊36'39	
max. Earth dist.	2517 May 07 04:16	6°♊32'54	2.39310 AU	opposition	2522 Jun 27 23:06	6°♊28'28	-4°-7'-7
morning rise	2517 May 28 10:00	22°♊24'34		greatest brilliancy	2522 Jun 29 13:51	5°♊57'30	-2.4m
	2517 Jun 07 18:35	0°♊		min. Earth dist.	2522 Jul 05 23:53	3°♊55'40	0.44132 AU
asc. node	2517 Jun 17 13:36	7°♊05'13			2522 Jul 22 00:01	30°♊	
	2517 Jul 20 02:51	0°♊		direct	2522 Aug 02 13:49	29°♊03'11	
	2517 Sep 03 02:30	0°♊			2522 Aug 14 07:56	0°♊	
	2517 Oct 21 14:54	0°♊			2522 Oct 20 03:45	0°♊	
	2517 Dec 16 15:50	0°♊			2522 Dec 03 06:29	0°♊	
retrograde	2518 Feb 18 10:16	17°♊53'15			2523 Jan 13 18:15	0°♊	
opposition	2518 Mar 29 16:19	8°♊47'28	3°16'19	asc. node	2523 Feb 07 09:57	17°♊51'53	
greatest brilliancy	2518 Mar 30 05:58	8°♊34'08	-1.3m		2523 Feb 24 07:54	0°♊	
min. Earth dist.	2518 Apr 02 08:39	7°♊21'11	0.65606 AU		2523 Apr 08 02:05	0°♊	
	2518 Apr 26 06:22	30°♊			2523 May 22 10:29	0°♊	
direct	2518 May 10 04:24	28°♊45'03		evening set	2523 Jul 06 23:43	29°♊48'42	
	2518 May 24 16:56	0°♊			2523 Jul 07 06:43	0°♊	
desc. node	2518 Jul 04 00:43	13°♊05'12					
	2518 Aug 06 02:04	0°♊		conjunction	2523 Aug 23 10:45	0°♊13'10	1°08'22
	2518 Sep 23 05:07	0°♊		minimum elong	2523 Aug 23 10:58	0°♊13'31	1°08'23
	2518 Nov 04 16:49	0°♊			2523 Aug 23 02:29	0°♊	
	2518 Dec 14 07:57	0°♊		max. Earth dist.	2523 Aug 26 02:37	1°♊54'50	2.67330 AU
	2519 Jan 21 15:10	0°♊		morning rise	2523 Oct 07 06:40	28°♊44'56	
	2519 Feb 28 18:36	0°♊			2523 Oct 09 05:47	0°♊	
evening set	2519 Mar 24 11:58	18°♊22'57			2523 Nov 25 03:37	0°♊	
	2519 Apr 08 17:38	0°♊			2524 Jan 10 15:16	0°♊	
asc. node	2519 May 05 12:04	19°♊58'13		desc. node	2524 Feb 23 22:38	28°♊43'51	
	2519 May 19 06:16	0°♊			2524 Feb 25 21:39	0°♊	
					2524 Apr 12 14:58	0°♊	
conjunction	2519 May 26 23:56	5°♊34'06	0°13'44		2524 Jun 01 06:43	0°♊	
minimum elong	2519 May 26 23:00	5°♊32'27	0°13'44	retrograde	2524 Aug 12 21:50	25°♊32'22	

min. Earth dist.	2524 Sep 10 03:44	20° ✕ 55'48	0.37364 AU	desc. node	2529 Oct 15 18:41	11° ℓ 38'31	
opposition	2524 Sep 12 12:03	20° ✕ 18'01	-6°-6'-10	evening set	2529 Oct 28 22:10	20° ℓ 38'01	
greatest brilliancy	2524 Sep 12 01:33	20° ✕ 25'04	-2.9m		2529 Nov 11 08:53	0° ✕	
direct	2524 Oct 11 21:25	15° ✕ 23'37		max. Earth dist.	2529 Nov 12 11:54	0° ✕ 47'29	2.49468 AU
	2524 Dec 03 00:19	0° Υ					
asc. node	2524 Dec 25 08:21	11° Υ 40'38		conjunction	2529 Dec 19 05:24	27° ✕ 14'56	0°-36'-51
	2525 Jan 25 10:30	0° ♄		minimum elong	2529 Dec 19 03:45	27° ✕ 11'55	0°36'51
	2525 Mar 14 06:45	0° ♂			2529 Dec 22 22:51	0° ♄	
	2525 Apr 30 12:46	0° ♄			2530 Jan 31 16:48	0° ≈	
	2525 Jun 17 02:16	0° ♂		morning rise	2530 Feb 14 21:23	10° ≈ 57'08	
	2525 Aug 03 19:07	0° ♊			2530 Mar 11 07:46	0° ✕	
evening set	2525 Aug 13 11:04	6° ♊ 05'50			2530 Apr 18 15:16	0° Υ	
max. Earth dist.	2525 Sep 17 05:49	28° ♊ 11'50	2.66539 AU		2530 May 27 12:36	0° ♄	
	2525 Sep 20 01:22	0° ♂			2530 Jul 06 23:04	0° ♂	
				asc. node	2530 Aug 17 06:25	28° ♂ 45'34	
conjunction	2525 Sep 27 21:01	5° ♂ 01'11	0°51'45		2530 Aug 19 03:04	0° ♄	
minimum elong	2525 Sep 27 22:07	5° ♂ 02'56	0°51'45		2530 Oct 06 08:30	0° ♂	
	2525 Nov 05 06:45	0° ℓ			2530 Dec 15 22:20	0° ♊	
morning rise	2525 Nov 11 08:31	4° ℓ 00'26		retrograde	2531 Jan 01 21:06	1° ♊ 43'50	
	2525 Dec 20 02:54	0° ✕			2531 Jan 17 22:14	30° ♊	
desc. node	2526 Jan 10 21:03	14° ✕ 54'56		min. Earth dist.	2531 Feb 09 10:01	22° ♂ 32'21	0.66717 AU
	2526 Feb 01 12:41	0° ♄		opposition	2531 Feb 11 03:03	21° ♂ 51'15	4°34'19
	2526 Mar 15 15:44	0° ≈		greatest brilliancy	2531 Feb 10 17:20	22° ♂ 01'00	-1.3m
	2526 Apr 25 21:41	0° ✕		direct	2531 Mar 23 03:28	12° ♂ 18'01	
	2526 Jun 06 03:13	0° Υ			2531 May 26 05:29	0° ♊	
	2526 Jul 19 10:54	0° ♄			2531 Jul 22 04:30	0° ♂	
	2526 Sep 12 01:53	0° ♂		desc. node	2531 Sep 02 17:32	26° ♂ 03'38	
retrograde	2526 Oct 15 10:43	7° ♂ 10'36			2531 Sep 08 20:12	0° ℓ	
asc. node	2526 Nov 12 07:47	1° ♂ 47'36			2531 Oct 23 06:25	0° ✕	
min. Earth dist.	2526 Nov 12 22:09	1° ♂ 35'11	0.47342 AU		2531 Dec 03 17:22	0° ♄	
	2526 Nov 17 09:33	30° ♊		evening set	2531 Dec 18 22:39	11° ♄ 26'39	
opposition	2526 Nov 21 04:49	28° ♄ 38'03	0°29'43		2532 Jan 12 02:48	0° ≈	
greatest brilliancy	2526 Nov 20 22:27	28° ♄ 43'44	-2.3m	max. Earth dist.	2532 Jan 31 03:42	14° ≈ 51'53	2.37357 AU
direct	2526 Dec 24 10:10	21° ♄ 42'06					
	2527 Feb 01 18:50	0° ♂		conjunction	2532 Feb 19 14:04	0° ✕ 10'39	-1°-4'-17
	2527 Apr 04 20:29	0° ♄		minimum elong	2532 Feb 19 14:53	0° ✕ 12'16	1°04'17
	2527 May 27 00:31	0° ♂			2532 Feb 19 08:40	0° ✕	
	2527 Jul 15 17:56	0° ♊			2532 Mar 28 09:09	0° Υ	
	2527 Sep 01 18:41	0° ♂		morning rise	2532 Apr 30 12:18	25° Υ 44'47	
evening set	2527 Sep 19 11:10	11° ♂ 20'30			2532 May 06 01:41	0° ♄	
max. Earth dist.	2527 Oct 12 04:46	26° ♂ 11'43	2.60386 AU		2532 Jun 15 05:56	0° ♂	
	2527 Oct 17 22:37	0° ℓ		asc. node	2532 Jul 04 05:05	13° ♂ 38'49	
					2532 Jul 27 15:03	0° ♄	
conjunction	2527 Nov 04 19:19	11° ℓ 58'40	0°13'48		2532 Sep 10 23:05	0° ♂	
minimum elong	2527 Nov 04 19:49	11° ℓ 59'31	0°13'48		2532 Oct 30 22:25	0° ♊	
behind sun begin	2527 Nov 04 09:26	11° ℓ 41'58			2533 Jan 04 17:52	0° ♂	
behind sun end	2527 Nov 05 06:12	12° ℓ 17'05		retrograde	2533 Feb 04 08:50	5° ♂ 01'27	
desc. node	2527 Nov 28 19:40	28° ℓ 26'16			2533 Mar 04 11:55	30° ♊	
	2527 Dec 01 01:37	0° ✕		opposition	2533 Mar 16 03:02	25° ♊ 38'11	3°52'46
morning rise	2527 Dec 22 13:58	15° ✕ 08'27		greatest brilliancy	2533 Mar 16 11:52	25° ♊ 29'28	-1.2m
	2528 Jan 12 05:47	0° ♄		min. Earth dist.	2533 Mar 18 07:17	24° ♊ 46'36	0.67215 AU
	2528 Feb 21 18:40	0° ≈		direct	2533 Apr 26 11:46	15° ♊ 38'24	
	2528 Apr 01 04:54	0° ✕			2533 Jun 21 02:41	0° ♂	
	2528 May 10 06:03	0° Υ		desc. node	2533 Jul 20 16:00	14° ♂ 36'53	
	2528 Jun 18 22:13	0° ♄			2533 Aug 16 10:15	0° ℓ	
	2528 Jul 30 18:04	0° ♂			2533 Oct 01 18:01	0° ✕	
	2528 Sep 16 02:14	0° ♄			2533 Nov 12 17:18	0° ♄	
asc. node	2528 Sep 29 07:44	7° ♄ 08'48			2533 Dec 22 04:15	0° ≈	
retrograde	2528 Nov 27 00:34	24° ♄ 59'35			2534 Jan 29 09:16	0° ✕	
min. Earth dist.	2528 Dec 31 00:10	17° ♄ 19'07	0.59685 AU	greatest brilliancy	2534 Feb 15 08:03	13° ✕ 23'47	1.2m
greatest brilliancy	2529 Jan 04 11:28	15° ♄ 33'07	-1.6m	evening set	2534 Feb 24 10:26	20° ✕ 34'32	
opposition	2529 Jan 05 13:13	15° ♄ 07'35	3°48'52		2534 Mar 08 10:18	0° Υ	
direct	2529 Feb 11 21:38	6° ♄ 29'42			2534 Apr 16 05:51	0° ♄	
	2529 Apr 28 18:40	0° ♂					
	2529 Jun 23 14:00	0° ♊		conjunction	2534 May 02 18:06	12° ♄ 26'25	0°-12'-43
	2529 Aug 12 15:42	0° ♂		minimum elong	2534 May 02 19:10	12° ♄ 28'24	0°12'43
	2529 Sep 28 09:47	0° ℓ		behind sun begin	2534 May 02 02:21	11° ♄ 57'01	

behind sun end	2534 May 03 11:58	12°♄59'45		opposition	2539 Aug 11 16:44	19°♊04'34	-6°-44'-59
asc. node	2534 May 22 05:02	26°♄48'35		greatest brilliancy	2539 Aug 12 17:28	18°♊47'49	-2.8m
	2534 May 26 14:12	0°♂		min. Earth dist.	2539 Aug 14 22:56	18°♊11'39	0.38013 AU
max. Earth dist.	2534 Jun 18 03:13	16°♂08'52	2.47605 AU	direct	2539 Sep 11 15:51	13°♊43'41	
morning rise	2534 Jul 03 14:42	26°♂58'34			2539 Nov 04 13:49	0°♋	
	2534 Jul 07 23:42	0°♌			2539 Dec 24 20:01	0°♋	
	2534 Aug 21 16:45	0°♍		asc. node	2540 Jan 12 01:25	11°♋57'47	
	2534 Oct 07 23:22	0°♎			2540 Feb 08 01:25	0°♌	
	2534 Nov 27 21:43	0°♏			2540 Mar 23 22:52	0°♌	
	2535 Jan 28 17:52	0°♐			2540 May 08 16:25	0°♌	
retrograde	2535 Mar 14 10:24	9°♐40'27			2540 Jun 24 09:25	0°♍	
opposition	2535 Apr 21 11:24	1°♐10'12	1°51'40	evening set	2540 Jul 29 22:50	22°♍34'40	
greatest brilliancy	2535 Apr 22 01:41	0°♐56'35	-1.5m		2540 Aug 10 15:52	0°♎	
	2535 Apr 24 12:53	30°♑♂		max. Earth dist.	2540 Sep 08 03:33	18°♎05'17	2.67497 AU
min. Earth dist.	2535 Apr 27 09:36	28°♑♂54'39	0.61133 AU				
direct	2535 Jun 01 14:02	21°♑♂16'29		conjunction	2540 Sep 13 19:36	21°♎41'57	1°00'59
desc. node	2535 Jun 07 15:16	21°♑♂30'31		minimum elong	2540 Sep 13 20:29	21°♎43'22	1°00'59
	2535 Jul 11 19:36	0°♒			2540 Sep 26 19:31	0°♑	
	2535 Sep 07 00:19	0°♓		morning rise	2540 Oct 28 01:36	20°♑07'53	
	2535 Oct 21 10:45	0°♔			2540 Nov 12 05:24	0°♒	
	2535 Nov 30 19:16	0°♕			2540 Dec 27 13:31	0°♓	
	2536 Jan 08 11:44	0°♋		desc. node	2541 Jan 27 12:22	20°♓55'22	
	2536 Feb 15 22:50	0°♌			2541 Feb 09 18:51	0°♔	
	2536 Mar 26 05:47	0°♍			2541 Mar 25 01:25	0°♕	
asc. node	2536 Apr 08 03:02	9°♍36'16			2541 May 06 20:51	0°♋	
evening set	2536 May 01 09:16	26°♍36'16			2541 Jun 19 15:09	0°♌	
	2536 May 06 02:34	0°♎			2541 Aug 09 07:16	0°♍	
	2536 Jun 17 22:43	0°♏		retrograde	2541 Sep 23 23:04	12°♍40'15	
conjunction	2536 Jun 27 01:17	6°♏12'02	0°45'22	min. Earth dist.	2541 Oct 20 20:08	7°♍51'05	0.42251 AU
minimum elong	2536 Jun 26 23:33	6°♏09'06	0°45'21	opposition	2541 Oct 28 13:09	5°♍21'00	-1°-56'-26
max. Earth dist.	2536 Jul 22 07:30	23°♏06'28	2.59381 AU	greatest brilliancy	2541 Oct 27 18:52	5°♍35'52	-2.6m
	2536 Aug 01 18:41	0°♍			2541 Nov 18 23:51	30°♑♋	
morning rise	2536 Aug 17 01:32	9°♍57'35		direct	2541 Nov 28 19:38	29°♋20'29	
	2536 Sep 17 08:34	0°♎		asc. node	2541 Nov 29 01:06	29°♋20'30	
	2536 Nov 04 11:43	0°♏			2541 Dec 08 22:28	0°♌	
	2536 Dec 24 16:13	0°♐			2542 Feb 22 10:21	0°♌	
	2537 Feb 18 04:29	0°♑			2542 Apr 15 14:35	0°♌	
desc. node	2537 Apr 24 14:30	21°♑♓32'28			2542 Jun 04 07:07	0°♍	
retrograde	2537 May 01 09:03	21°♑♓48'53		evening set	2542 Jul 23 00:26	0°♎	
opposition	2537 Jun 04 23:33	14°♑♓50'08	-2°00'-55		2542 Sep 04 23:13	27°♎38'30	
greatest brilliancy	2537 Jun 05 21:52	14°♑♓30'48	-2.1m		2542 Sep 08 15:55	0°♑	
min. Earth dist.	2537 Jun 13 09:36	11°♑♓55'32	0.49396 AU	max. Earth dist.	2542 Oct 02 03:48	15°♑08'22	2.63410 AU
direct	2537 Jul 13 02:10	6°♑♓15'13		conjunction	2542 Oct 20 13:45	27°♑12'18	0°30'41
	2537 Sep 18 21:09	0°♔		minimum elong	2542 Oct 20 14:41	27°♑13'51	0°30'41
	2537 Nov 03 16:09	0°♕			2542 Oct 24 19:11	0°♒	
	2537 Dec 14 14:48	0°♋		morning rise	2542 Dec 05 12:09	28°♒10'35	
	2538 Jan 23 13:21	0°♌			2542 Dec 08 03:34	0°♓	
asc. node	2538 Feb 24 01:20	23°♋23'43		desc. node	2542 Dec 15 10:58	5°♓03'58	
	2538 Mar 05 01:53	0°♍			2543 Jan 19 17:10	0°♔	
	2538 Apr 16 00:58	0°♎			2543 Mar 01 17:50	0°♕	
	2538 May 29 19:08	0°♏			2543 Apr 10 16:25	0°♋	
evening set	2538 Jun 20 13:15	14°♏29'10			2543 May 20 06:29	0°♌	
	2538 Jul 14 05:41	0°♍			2543 Jun 29 15:53	0°♌	
					2543 Aug 12 01:36	0°♌	
conjunction	2538 Aug 08 17:05	16°♍27'16	1°07'59		2543 Oct 05 20:33	0°♏	
minimum elong	2538 Aug 08 16:43	16°♍26'40	1°07'59	asc. node	2543 Oct 16 23:17	4°♏01'18	
max. Earth dist.	2538 Aug 17 04:01	21°♍52'28	2.66162 AU	retrograde	2543 Nov 12 11:27	8°♏29'57	
	2538 Aug 29 21:13	0°♎		min. Earth dist.	2543 Dec 14 08:42	1°♏34'34	0.55330 AU
morning rise	2538 Sep 23 12:25	15°♎39'59			2543 Dec 18 10:56	30°♑♒	
	2538 Oct 16 03:11	0°♑		greatest brilliancy	2543 Dec 20 04:12	29°♒19'53	-1.8m
	2538 Dec 02 13:29	0°♒		opposition	2543 Dec 21 06:19	28°♒54'34	2°56'29
	2539 Jan 19 05:28	0°♓		direct	2544 Jan 26 04:41	20°♒49'23	
	2539 Mar 08 21:37	0°♔			2544 Mar 08 17:53	0°♏	
desc. node	2539 Mar 12 13:32	2°♔12'15			2544 May 10 11:08	0°♍	
	2539 Apr 30 09:27	0°♕			2544 Jul 01 22:09	0°♎	
retrograde	2539 Jul 12 12:21	24°♕04'34			2544 Aug 19 23:24	0°♑	

	2544 Oct 05 10:05	0°♌		morning rise	2549 Jun 11 13:34	6°♊15'13	
evening set	2544 Oct 12 09:33	4°♌39'05			2549 Jul 15 05:50	0°♊	
max. Earth dist.	2544 Oct 29 09:26	16°♌08'56	2.54235 AU		2549 Aug 29 01:12	0°♊	
desc. node	2544 Nov 01 09:53	18°♌12'57			2549 Oct 15 23:00	0°♐	
	2544 Nov 18 09:50	0°♏			2549 Dec 08 09:29	0°♑	
				retrograde	2550 Feb 26 20:24	25°♑55'09	
conjunction	2544 Nov 30 02:56	8°♏15'47	0°-16'-52	opposition	2550 Apr 06 17:28	17°♑00'48	2°49'05
minimum elong	2544 Nov 30 02:12	8°♏14'28	0°16'53	greatest brilliancy	2550 Apr 07 08:28	16°♑46'14	-1.4m
	2544 Dec 30 04:30	0°♐		min. Earth dist.	2550 Apr 11 05:15	15°♑16'13	0.64294 AU
morning rise	2545 Jan 21 19:40	16°♐49'59		direct	2550 May 18 04:02	6°♑59'25	
	2545 Feb 08 04:54	0°♑		desc. node	2550 Jun 24 06:29	14°♑18'12	
	2545 Mar 19 02:03	0°♒			2550 Jul 29 05:04	0°♌	
	2545 Apr 26 14:40	0°♑			2550 Sep 17 07:37	0°♏	
	2545 Jun 04 16:30	0°♒			2550 Oct 30 08:47	0°♐	
	2545 Jul 15 09:48	0°♊			2550 Dec 09 05:21	0°♑	
	2545 Aug 28 09:06	0°♊			2551 Jan 16 15:10	0°♒	
asc. node	2545 Sep 02 22:51	3°♊34'00			2551 Feb 23 20:26	0°♑	
	2545 Oct 18 23:04	0°♊			2551 Apr 03 21:09	0°♒	
retrograde	2545 Dec 19 09:38	18°♊20'53		evening set	2551 Apr 08 07:38	3°♒20'42	
min. Earth dist.	2546 Jan 25 07:03	9°♊41'08	0.64729 AU	asc. node	2551 Apr 25 19:45	16°♒23'14	
opposition	2546 Jan 28 12:36	8°♊23'27	4°29'01		2551 May 14 11:14	0°♊	
greatest brilliancy	2546 Jan 27 19:21	8°♊40'45	-1.4m				
	2546 Feb 25 01:26	30°♒00'		conjunction	2551 Jun 08 08:16	17°♊42'09	0°26'54
direct	2546 Mar 08 15:26	29°♒07'50		minimum elong	2551 Jun 08 06:45	17°♊39'28	0°26'53
	2546 Mar 20 20:07	0°♊			2551 Jun 26 01:28	0°♊	
	2546 Jun 07 15:11	0°♐		max. Earth dist.	2551 Jul 11 13:35	10°♐33'59	2.55281 AU
	2546 Jul 30 16:52	0°♑		morning rise	2551 Aug 01 19:57	24°♐46'41	
	2546 Sep 16 09:13	0°♌			2551 Aug 09 18:13	0°♊	
desc. node	2546 Sep 19 09:08	1°♌58'08			2551 Sep 25 11:16	0°♐	
	2546 Oct 30 13:17	0°♏			2551 Nov 13 07:20	0°♑	
evening set	2546 Nov 27 04:44	19°♏48'50			2552 Jan 04 18:39	0°♌	
	2546 Dec 11 00:25	0°♐			2552 Mar 13 10:40	0°♏	
max. Earth dist.	2546 Dec 15 09:56	3°♐16'36	2.41493 AU	retrograde	2552 Apr 10 08:54	4°♏09'10	
	2547 Jan 19 12:28	0°♑			2552 May 06 05:04	30°♒♌	
				desc. node	2552 May 11 05:15	28°♌22'08	
conjunction	2547 Jan 23 16:50	3°♑14'23	-1°-1'-10	opposition	2552 May 16 13:22	26°♌28'29	0°-14'-27
minimum elong	2547 Jan 23 15:15	3°♑11'20	1°01'10	greatest brilliancy	2552 May 04 04:40	0°♏36'02	-1.9m
	2547 Feb 26 21:08	0°♒		min. Earth dist.	2552 May 24 07:45	23°♌38'40	0.54506 AU
morning rise	2547 Mar 31 23:25	26°♒04'25		direct	2552 Jun 25 07:13	17°♌09'03	
	2547 Apr 05 23:31	0°♑			2552 Aug 12 17:41	0°♏	
	2547 May 14 16:49	0°♒			2552 Oct 03 09:03	0°♐	
	2547 Jun 23 21:31	0°♊			2552 Nov 14 17:00	0°♑	
asc. node	2547 Jul 21 21:51	19°♊59'15			2552 Dec 24 08:11	0°♒	
	2547 Aug 05 10:00	0°♊			2553 Feb 01 11:13	0°♑	
	2547 Sep 20 08:53	0°♊		asc. node	2553 Mar 12 18:59	29°♑35'26	
	2547 Nov 12 00:00	0°♐			2553 Mar 13 08:15	0°♒	
retrograde	2548 Jan 22 19:54	22°♐21'15			2553 Apr 23 17:56	0°♊	
opposition	2548 Mar 02 21:46	12°♐43'50	4°17'41	evening set	2553 Jun 02 14:13	27°♊39'20	
greatest brilliancy	2548 Mar 02 23:56	12°♐41'41	-1.2m		2553 Jun 06 01:05	0°♊	
min. Earth dist.	2548 Mar 03 13:25	12°♐28'16	0.67825 AU		2553 Jul 21 03:55	0°♊	
direct	2548 Apr 12 21:34	2°♐51'15					
	2548 Jul 04 15:44	0°♑		conjunction	2553 Jul 24 02:50	1°♊55'42	1°03'10
desc. node	2548 Aug 06 08:12	18°♑18'54		minimum elong	2553 Jul 24 01:50	1°♊54'03	1°03'10
	2548 Aug 25 10:53	0°♌		max. Earth dist.	2553 Aug 07 17:04	11°♊24'01	2.64135 AU
	2548 Oct 09 18:36	0°♏			2553 Sep 05 16:53	0°♐	
	2548 Nov 20 10:52	0°♐		morning rise	2553 Sep 09 11:14	2°♐23'52	
	2548 Dec 29 20:00	0°♑			2553 Oct 23 03:58	0°♑	
evening set	2549 Jan 27 00:44	22°♑06'42			2553 Dec 10 08:15	0°♌	
	2549 Feb 06 00:13	0°♒			2554 Jan 28 19:13	0°♏	
	2549 Mar 15 23:53	0°♑			2554 Mar 23 03:09	0°♐	
				desc. node	2554 Mar 29 04:44	3°♐06'29	
conjunction	2549 Apr 05 07:51	15°♑52'06	0°-39'-43	retrograde	2554 Jun 11 01:35	26°♐30'15	
minimum elong	2549 Apr 05 11:01	15°♑58'13	0°39'42	opposition	2554 Jul 12 18:15	20°♐51'39	-5°-18'-49
	2549 Apr 23 17:03	0°♒		greatest brilliancy	2554 Jul 14 12:00	20°♐20'23	-2.6m
max. Earth dist.	2549 May 27 05:50	25°♒06'25	2.42173 AU	min. Earth dist.	2554 Jul 19 21:00	18°♐44'37	0.41478 AU
	2549 Jun 02 22:22	0°♊		direct	2554 Aug 15 16:46	14°♐13'17	
asc. node	2549 Jun 07 19:55	3°♊33'23			2554 Oct 07 01:32	0°♑	

	2554 Nov 24 21:33	0° H		desc. node	2559 Nov 19 02:05	24° M 53'29	
	2555 Jan 06 22:45	0° Y			2559 Nov 26 10:39	0° J	
asc. node	2555 Jan 28 17:15	15° Y 25'33		morning rise	2560 Jan 02 03:07	26° J 06'32	
	2555 Feb 18 09:13	0° B			2560 Jan 07 11:26	0° C	
	2555 Apr 02 16:50	0° II			2560 Feb 16 19:40	0° \approx	
	2555 May 17 10:33	0° S			2560 Mar 27 00:36	0° H	
	2555 Jul 02 12:37	0° Q			2560 May 04 20:10	0° Y	
evening set	2555 Jul 15 22:03	8° Q 35'42			2560 Jun 13 05:27	0° B	
	2555 Aug 18 11:20	0° M			2560 Jul 24 11:41	0° II	
					2560 Sep 08 00:52	0° S	
conjunction	2555 Aug 31 16:21	8° M 24'10	1°06'44	asc. node	2560 Sep 19 14:10	6° S 49'41	
minimum elong	2555 Aug 31 16:51	8° M 24'59	1°06'43		2560 Nov 09 08:17	0° Q	
max. Earth dist.	2555 Aug 31 07:08	8° M 09'32	2.67612 AU	retrograde	2560 Dec 05 09:52	4° Q 07'20	
	2555 Oct 04 14:08	0° A			2560 Dec 29 17:59	30° R S	
morning rise	2555 Oct 15 04:15	6° A 46'09		min. Earth dist.	2561 Jan 09 11:49	26° S 03'56	0.61761 AU
	2555 Nov 20 06:55	0° M		greatest brilliancy	2561 Jan 13 05:40	24° S 34'28	-1.5m
	2556 Jan 05 07:24	0° J		opposition	2561 Jan 14 05:10	24° S 11'01	4°08'59
desc. node	2556 Feb 14 03:32	26° J 18'55		direct	2561 Feb 21 05:49	15° S 18'01	
	2556 Feb 19 16:45	0° C			2561 Apr 19 06:35	0° Q	
	2556 Apr 04 19:36	0° \approx			2561 Jun 17 15:23	0° M	
	2556 May 20 18:02	0° H			2561 Aug 07 14:28	0° A	
	2556 Jul 11 16:04	0° Y			2561 Sep 23 16:05	0° M	
retrograde	2556 Aug 29 11:04	13° Y 41'09		desc. node	2561 Oct 06 00:53	8° M 13'49	
min. Earth dist.	2556 Sep 25 08:03	9° Y 13'48	0.38406 AU		2561 Nov 06 17:29	0° J	
greatest brilliancy	2556 Sep 29 07:59	8° Y 05'36	-2.8m	evening set	2561 Nov 07 22:16	0° J 50'35	
opposition	2556 Sep 30 06:03	7° Y 49'49	-4°-47'-22	max. Earth dist.	2561 Nov 22 06:18	11° J 01'33	2.46674 AU
direct	2556 Oct 30 00:59	2° Y 41'00			2561 Dec 18 06:52	0° C	
asc. node	2556 Dec 15 16:50	14° Y 33'17					
	2557 Jan 15 10:27	0° B		conjunction	2561 Dec 31 02:17	9° C 33'16	0°-47'-18
	2557 Mar 07 10:01	0° II		minimum elong	2561 Dec 31 00:18	9° C 29'34	0°47'18
	2557 Apr 24 21:30	0° S			2562 Jan 26 23:03	0° \approx	
	2557 Jun 12 01:30	0° Q		morning rise	2562 Mar 02 02:53	26° \approx 34'32	
	2557 Jul 30 01:53	0° M			2562 Mar 06 11:38	0° H	
evening set	2557 Aug 21 15:43	14° M 13'12			2562 Apr 13 16:43	0° Y	
	2557 Sep 15 11:04	0° A		greatest brilliancy	2562 Apr 15 23:31	1° Y 47'07	1.2m
max. Earth dist.	2557 Sep 22 13:50	4° A 33'51	2.65641 AU		2562 May 22 11:37	0° B	
					2562 Jul 01 18:18	0° II	
conjunction	2557 Oct 06 00:31	13° A 14'33	0°44'52	asc. node	2562 Aug 07 13:41	25° II 56'03	
minimum elong	2557 Oct 06 01:37	13° A 16'20	0°44'52		2562 Aug 13 13:38	0° S	
	2557 Oct 31 15:29	0° M			2562 Sep 29 14:55	0° Q	
morning rise	2557 Nov 19 20:39	12° M 46'36			2562 Nov 27 07:56	0° M	
	2557 Dec 15 07:14	0° J		retrograde	2563 Jan 09 13:09	9° M 38'19	
desc. node	2558 Jan 01 02:29	11° J 34'32		opposition	2563 Feb 18 18:32	29° Q 50'03	4°31'36
	2558 Jan 27 09:05	0° C		min. Earth dist.	2563 Feb 17 21:46	0° M 10'50	0.67399 AU
	2558 Mar 10 01:35	0° \approx			2563 Feb 18 08:36	30° R Q	
	2558 Apr 19 18:07	0° H		greatest brilliancy	2563 Feb 18 13:10	29° Q 55'26	-1.2m
	2558 May 30 05:24	0° Y		direct	2563 Mar 31 04:18	20° Q 08'48	
	2558 Jul 11 00:32	0° B			2563 May 15 12:00	0° M	
	2558 Aug 27 10:59	0° II			2563 Jul 16 02:35	0° A	
retrograde	2558 Oct 26 05:52	19° II 38'51		desc. node	2563 Aug 23 23:13	23° A 12'19	
asc. node	2558 Nov 02 16:24	19° II 14'24			2563 Sep 03 16:17	0° M	
min. Earth dist.	2558 Nov 24 21:40	13° II 34'10	0.50291 AU		2563 Oct 18 09:49	0° J	
opposition	2558 Dec 02 20:41	10° II 37'33	1°33'59		2563 Nov 28 22:50	0° C	
greatest brilliancy	2558 Dec 02 02:57	10° II 54'01	-2.1m	evening set	2564 Jan 01 12:45	25° C 29'32	
direct	2559 Jan 06 03:25	3° II 14'03			2564 Jan 07 08:30	0° \approx	
	2559 Mar 27 17:14	0° S			2564 Feb 14 13:49	0° H	
	2559 May 21 04:39	0° Q					
	2559 Jul 10 17:17	0° M		conjunction	2564 Mar 06 20:42	16° H 49'50	0°-59'-26
	2559 Aug 28 02:01	0° A		minimum elong	2564 Mar 06 23:08	16° H 54'40	0°59'25
evening set	2559 Sep 27 22:08	19° A 50'16			2564 Mar 23 13:43	0° Y	
	2559 Oct 13 08:26	0° M		max. Earth dist.	2564 Apr 08 20:01	12° Y 42'59	2.37478 AU
max. Earth dist.	2559 Oct 18 10:24	3° M 22'59	2.58397 AU		2564 May 01 05:54	0° B	
				morning rise	2564 May 16 16:06	11° B 41'16	
conjunction	2559 Nov 13 22:07	21° M 19'47	0°03'03		2564 Jun 10 09:27	0° II	
minimum elong	2559 Nov 13 22:15	21° M 20'01	0°03'04	asc. node	2564 Jun 24 13:46	10° II 15'05	
behind sun begin	2559 Nov 13 02:20	20° M 45'50			2564 Jul 22 16:19	0° S	
behind sun end	2559 Nov 14 18:10	21° M 54'14			2564 Sep 05 17:05	0° Q	

	2564 Oct 24 15:46	0°♎			2569 Oct 26 12:13	0°≈		
	2564 Dec 22 04:07	0°♊			2569 Dec 07 21:50	0°♐		
retrograde	2565 Feb 12 08:37	12°♊49'23			2570 Jan 17 13:53	0°♑		
opposition	2565 Mar 23 20:15	3°♊35'19	3°32'46	asc. node	2570 Feb 14 10:20	20°♑27'11		
greatest brilliancy	2565 Mar 24 07:59	3°♊23'47	-1.3m		2570 Feb 27 14:14	0°♐		
min. Earth dist.	2565 Mar 26 20:23	2°♊24'25	0.66458 AU		2570 Apr 10 21:57	0°♑		
	2565 Apr 02 03:12	30°♎			2570 May 24 22:24	0°♐		
direct	2565 May 04 06:59	23°♎33'20		evening set	2570 Jun 30 01:32	23°♐50'10		
	2565 Jun 08 08:29	0°♊			2570 Jul 09 13:03	0°♑		
desc. node	2565 Jul 10 22:04	13°♊43'06						
	2565 Aug 09 23:33	0°♌		conjunction	2570 Aug 17 05:04	24°♑51'44	1°08'42	
	2565 Sep 26 08:03	0°♍		minimum elong	2570 Aug 17 05:03	24°♑51'43	1°08'42	
	2565 Nov 07 15:12	0°♎		max. Earth dist.	2570 Aug 22 11:37	28°♑13'40	2.66912 AU	
	2565 Dec 17 05:12	0°≈			2570 Aug 25 06:19	0°♎		
	2566 Jan 24 11:29	0°♐		morning rise	2570 Oct 01 09:50	23°♎37'49		
	2566 Mar 03 13:22	0°♑			2570 Oct 11 10:24	0°♊		
evening set	2566 Mar 12 10:25	6°♑55'48			2570 Nov 27 13:26	0°♌		
	2566 Apr 11 10:01	0°♐			2571 Jan 13 12:34	0°♍		
asc. node	2566 May 12 12:11	23°♐12'43			2571 Mar 01 16:25	0°♎		
				desc. node	2571 Mar 02 19:49	0°♎43'13		
conjunction	2566 May 16 20:35	26°♐23'41	0°02'52		2571 Apr 19 05:52	0°≈		
minimum elong	2566 May 16 20:24	26°♐23'21	0°02'52		2571 Jun 13 22:49	0°♐		
behind sun begin	2566 May 15 18:36	25°♐36'16		retrograde	2571 Jul 30 22:27	11°♐58'47		
behind sun end	2566 May 17 22:12	27°♐10'22		opposition	2571 Aug 30 01:56	6°♐59'42	-6°-41'-29	
	2566 May 21 19:28	0°♑		greatest brilliancy	2571 Aug 30 06:45	6°♐56'32	-2.9m	
max. Earth dist.	2566 Jun 27 15:05	26°♑07'35	2.50503 AU	min. Earth dist.	2571 Aug 30 05:48	6°♐57'10	0.37238 AU	
	2566 Jul 03 05:31	0°♐		direct	2571 Sep 28 19:11	2°♐02'29		
morning rise	2566 Jul 14 19:53	7°♐56'28			2571 Dec 14 02:35	0°♑		
	2566 Aug 16 21:03	0°♑		asc. node	2572 Jan 02 08:45	11°♑32'01		
	2566 Oct 02 20:33	0°♎			2572 Jan 31 14:40	0°♐		
	2566 Nov 21 18:51	0°♊			2572 Mar 17 21:36	0°♑		
	2567 Jan 17 12:12	0°♌			2572 May 03 08:58	0°♐		
retrograde	2567 Mar 24 00:11	18°♌27'48			2572 Jun 19 12:07	0°♑		
opposition	2567 Apr 30 11:04	10°♌13'13	1°10'41		2572 Aug 05 23:59	0°♎		
greatest brilliancy	2567 Apr 30 21:54	10°♌03'02	-1.6m	evening set	2572 Aug 07 06:57	0°♎48'56		
min. Earth dist.	2567 May 07 02:19	7°♌43'14	0.59014 AU	max. Earth dist.	2572 Sep 13 09:14	24°♎21'24	2.67078 AU	
desc. node	2567 May 28 20:43	1°♌29'15						
direct	2567 Jun 10 05:00	0°♌27'48		conjunction	2572 Sep 21 20:19	29°♎45'50	0°56'00	
	2567 Aug 30 09:35	0°♍		minimum elong	2572 Sep 21 21:21	29°♎47'29	0°55'59	
	2567 Oct 15 09:01	0°♎			2572 Sep 22 05:10	0°♊		
	2567 Nov 25 06:12	0°≈		morning rise	2572 Nov 05 03:45	28°♊26'06		
	2568 Jan 03 04:50	0°♐			2572 Nov 07 13:03	0°♌		
	2568 Feb 10 19:58	0°♑			2572 Dec 22 15:04	0°♍		
	2568 Mar 21 06:25	0°♐		desc. node	2573 Jan 17 18:24	17°♍48'35		
asc. node	2568 Mar 29 10:48	6°♐05'39			2573 Feb 04 09:36	0°♎		
	2568 May 01 06:17	0°♑			2573 Mar 19 00:19	0°≈		
evening set	2568 May 13 17:16	8°♑50'57			2573 Apr 29 20:33	0°♐		
	2568 Jun 13 04:58	0°♐			2573 Jun 10 22:21	0°♑		
					2573 Jul 26 02:32	0°♐		
conjunction	2568 Jul 07 07:42	16°♐16'04	0°53'26	retrograde	2573 Oct 06 14:12	27°♐30'49		
minimum elong	2568 Jul 07 06:09	16°♐13'28	0°53'26	min. Earth dist.	2573 Nov 03 04:28	22°♐18'05	0.44981 AU	
	2568 Jul 28 02:14	0°♑		opposition	2573 Nov 11 10:47	19°♐27'58	0°-27'-43	
max. Earth dist.	2568 Jul 28 12:48	0°♑17'18	2.61300 AU	greatest brilliancy	2573 Nov 11 05:32	19°♐32'28	-2.4m	
morning rise	2568 Aug 25 19:32	18°♑37'48		asc. node	2573 Nov 19 07:43	16°♐53'22		
	2568 Sep 12 14:41	0°♎		direct	2573 Dec 13 19:28	12°♐56'11		
	2568 Oct 30 10:12	0°♊			2574 Feb 11 12:30	0°♑		
	2568 Dec 18 16:48	0°♌			2574 Apr 08 21:26	0°♐		
	2569 Feb 09 04:06	0°♍			2574 May 29 20:31	0°♑		
desc. node	2569 Apr 14 19:43	28°♍46'40			2574 Jul 18 03:05	0°♎		
	2569 Apr 19 05:00	0°♎			2574 Sep 04 00:12	0°♊		
retrograde	2569 May 14 19:27	3°♎36'24		evening set	2574 Sep 13 05:20	5°♊53'27		
	2569 Jun 08 02:25	30°♎		max. Earth dist.	2574 Oct 07 22:46	21°♊55'32	2.61841 AU	
opposition	2569 Jun 17 11:21	27°♍04'37	-3°-11'-13		2574 Oct 20 04:40	0°♌		
greatest brilliancy	2569 Jun 18 20:13	26°♍37'15	-2.3m					
min. Earth dist.	2569 Jun 25 20:35	24°♍18'11	0.46465 AU	conjunction	2574 Oct 29 03:48	5°♌58'10	0°21'11	
direct	2569 Jul 24 06:52	19°♍05'16		minimum elong	2574 Oct 29 04:31	5°♌59'22	0°21'11	
	2569 Sep 05 02:48	0°♎			2574 Dec 03 11:04	0°♍		

desc. node	2574 Dec 05 16:57	1°♂33'27		min. Earth dist.	2580 Mar 11 23:29	19°♂59'22	0.67611 AU
morning rise	2574 Dec 14 23:49	8°♂02'17		direct	2580 Apr 20 16:22	10°♂37'53	
	2575 Jan 14 20:11	0°♂			2580 Jun 26 12:27	0°♂	
	2575 Feb 24 14:54	0°♂		desc. node	2580 Jul 27 12:59	16°♂18'52	
	2575 Apr 05 06:44	0°♂			2580 Aug 19 16:26	0°♂	
	2575 May 14 12:54	0°♂			2580 Oct 04 15:01	0°♂	
	2575 Jun 23 10:52	0°♂			2580 Nov 15 12:26	0°♂	
	2575 Aug 04 17:45	0°♂			2580 Dec 24 23:29	0°♂	
	2575 Sep 22 22:18	0°♂			2581 Feb 01 04:29	0°♂	
asc. node	2575 Oct 07 07:39	7°♂01'38		evening set	2581 Feb 11 21:31	8°♂28'24	
retrograde	2575 Nov 21 13:11	18°♂35'19			2581 Mar 11 04:31	0°♂	
min. Earth dist.	2575 Dec 24 14:33	11°♂14'01	0.57823 AU		2581 Apr 18 22:10	0°♂	
opposition	2575 Dec 30 18:19	8°♂49'01	3°30'10				
greatest brilliancy	2575 Dec 29 15:27	9°♂15'27	-1.7m	conjunction	2581 Apr 21 03:04	1°♂40'38	0°-24'-41
direct	2576 Feb 05 11:34	0°♂24'53		minimum elong	2581 Apr 21 05:12	1°♂44'40	0°24'41
	2576 May 03 05:04	0°♂		asc. node	2581 May 29 04:47	0°♂01'36	
	2576 Jun 26 10:24	0°♂			2581 May 29 03:54	0°♂	
	2576 Aug 15 01:57	0°♂		max. Earth dist.	2581 Jun 09 17:01	8°♂21'02	2.45171 AU
	2576 Sep 30 17:55	0°♂		morning rise	2581 Jun 24 10:29	18°♂49'34	
evening set	2576 Oct 21 15:21	14°♂01'19			2581 Jul 10 10:50	0°♂	
desc. node	2576 Oct 22 16:02	14°♂43'19			2581 Aug 24 03:08	0°♂	
max. Earth dist.	2576 Nov 06 03:22	24°♂40'29	2.51668 AU		2581 Oct 10 13:44	0°♂	
	2576 Nov 13 18:38	0°♂			2581 Dec 01 06:55	0°♂	
					2582 Feb 07 17:39	0°♂	
conjunction	2576 Dec 10 15:58	19°♂10'03	0°-28'-27	retrograde	2582 Mar 07 14:44	4°♂08'36	
minimum elong	2576 Dec 10 14:42	19°♂07'44	0°28'28		2582 Apr 02 06:47	30°♂	
	2576 Dec 25 11:39	0°♂		opposition	2582 Apr 15 00:51	25°♂27'00	2°17'23
morning rise	2577 Feb 03 22:00	0°♂24'35		greatest brilliancy	2582 Apr 15 15:56	25°♂12'29	-1.4m
	2577 Feb 03 09:10	0°♂		min. Earth dist.	2582 Apr 20 07:44	23°♂24'52	0.62657 AU
	2577 Mar 14 03:10	0°♂		direct	2582 May 26 07:22	15°♂28'44	
	2577 Apr 21 12:38	0°♂		desc. node	2582 Jun 14 12:23	17°♂39'42	
	2577 May 30 11:10	0°♂			2582 Jul 19 13:42	0°♂	
	2577 Jul 09 22:58	0°♂			2582 Sep 10 23:33	0°♂	
	2577 Aug 22 07:49	0°♂			2582 Oct 24 19:16	0°♂	
asc. node	2577 Aug 24 06:47	1°♂17'14			2582 Dec 03 22:54	0°♂	
	2577 Oct 10 11:48	0°♂			2583 Jan 11 12:29	0°♂	
retrograde	2577 Dec 27 04:53	26°♂33'27			2583 Feb 18 20:26	0°♂	
min. Earth dist.	2578 Feb 03 00:09	17°♂35'36	0.65948 AU		2583 Mar 29 23:43	0°♂	
opposition	2578 Feb 05 09:32	16°♂38'03	4°33'50	asc. node	2583 Apr 16 03:18	12°♂48'30	
greatest brilliancy	2578 Feb 04 20:20	16°♂51'18	-1.3m	evening set	2583 Apr 22 07:09	17°♂21'06	
direct	2578 Mar 17 00:25	7°♂12'14			2583 May 09 16:20	0°♂	
	2578 May 31 00:03	0°♂					
	2578 Jul 25 03:31	0°♂		conjunction	2583 Jun 19 19:45	28°♂57'06	0°38'13
desc. node	2578 Sep 09 14:39	28°♂49'12		minimum elong	2583 Jun 19 18:00	28°♂54'05	0°38'12
	2578 Sep 11 10:14	0°♂			2583 Jun 21 08:23	0°♂	
	2578 Oct 25 19:21	0°♂		max. Earth dist.	2583 Jul 18 12:10	18°♂22'38	2.57641 AU
	2578 Dec 06 07:32	0°♂			2583 Aug 05 01:36	0°♂	
evening set	2578 Dec 09 02:58	2°♂05'33		morning rise	2583 Aug 11 06:05	4°♂03'09	
max. Earth dist.	2579 Jan 03 14:05	21°♂21'59	2.38928 AU		2583 Sep 20 15:28	0°♂	
	2579 Jan 14 18:56	0°♂			2583 Nov 08 00:08	0°♂	
					2583 Dec 28 23:35	0°♂	
conjunction	2579 Feb 07 10:08	18°♂26'44	-1°-4'-37		2584 Feb 25 18:54	0°♂	
minimum elong	2579 Feb 07 09:41	18°♂25'52	1°04'38	retrograde	2584 Apr 21 20:38	14°♂19'42	
	2579 Feb 22 02:19	0°♂		desc. node	2584 May 01 11:42	13°♂44'33	
	2579 Apr 01 03:16	0°♂		opposition	2584 May 27 05:05	7°♂00'53	-1°-12'-47
morning rise	2579 Apr 18 07:01	13°♂24'33		greatest brilliancy	2584 May 27 18:37	6°♂48'50	-2.0m
	2579 May 09 19:20	0°♂		min. Earth dist.	2584 Jun 04 09:47	4°♂06'13	0.51743 AU
	2579 Jun 18 22:32	0°♂			2584 Jun 18 07:58	30°♂	
asc. node	2579 Jul 12 05:10	16°♂42'49		direct	2584 Jul 05 02:46	28°♂03'12	
	2579 Jul 31 07:08	0°♂			2584 Jul 22 10:39	0°♂	
	2579 Sep 14 18:38	0°♂			2584 Sep 25 04:54	0°♂	
	2579 Nov 04 12:41	0°♂			2584 Nov 08 03:22	0°♂	
	2580 Jan 26 22:22	0°♂			2584 Dec 18 10:06	0°♂	
retrograde	2580 Jan 30 14:01	0°♂04'54			2585 Jan 26 22:19	0°♂	
	2580 Feb 03 04:27	30°♂		asc. node	2585 Mar 03 01:23	26°♂17'15	
opposition	2580 Mar 10 11:37	20°♂34'57	4°04'22		2585 Mar 08 02:20	0°♂	
greatest brilliancy	2580 Mar 10 17:38	20°♂28'58	-1.2m		2585 Apr 18 17:57	0°♂	

	2585 Jun 01 05:42	0°☿			2590 Apr 13 22:57	0°♄		
evening set	2585 Jun 13 01:07	7°☿55'58			2590 May 23 20:51	0°♅		
	2585 Jul 16 11:44	0°♁			2590 Jul 03 17:15	0°♆		
					2590 Aug 17 05:40	0°♇		
conjunction	2585 Aug 02 03:58	10°♁49'19	1°06'31	asc. node	2590 Oct 23 23:26	0°☿06'46		
minimum elong	2585 Aug 02 03:20	10°♁48'18	1°06'31		2590 Oct 23 07:30	0°☿		
max. Earth dist.	2585 Aug 13 06:39	17°♁58'46	2.65373 AU	retrograde	2590 Nov 05 08:06	1°☿09'49		
	2585 Sep 01 01:20	0°♂			2590 Nov 17 20:59	30°♂♂		
morning rise	2585 Sep 17 13:45	10°♂30'38		min. Earth dist.	2590 Dec 06 05:34	24°♂35'59	0.53143 AU	
	2585 Oct 18 08:56	0°♂		opposition	2590 Dec 13 15:17	21°♂46'52	2°25'56	
	2585 Dec 05 02:23	0°♂		greatest brilliancy	2590 Dec 12 15:11	22°♂09'54	-1.9m	
	2586 Jan 22 10:40	0°♂		direct	2591 Jan 17 20:17	13°♂59'02		
	2586 Mar 13 16:24	0°♂			2591 Mar 17 16:36	0°☿		
desc. node	2586 Mar 19 10:29	3°♂16'58			2591 May 14 22:48	0°♁		
	2586 May 10 21:17	0°♂			2591 Jul 05 12:25	0°♂		
retrograde	2586 Jun 28 08:32	11°♂51'10			2591 Aug 23 06:52	0°♂		
opposition	2586 Jul 29 00:30	6°♂37'52	-6°-17'-49	evening set	2591 Oct 06 15:40	28°♂38'38		
greatest brilliancy	2586 Jul 30 12:49	6°♂12'15	-2.7m		2591 Oct 08 16:48	0°♂		
min. Earth dist.	2586 Aug 03 08:10	5°♂08'05	0.39290 AU	max. Earth dist.	2591 Oct 25 05:17	11°♂03'39	2.56186 AU	
direct	2586 Aug 30 06:36	0°♂45'26		desc. node	2591 Nov 09 07:13	21°♂20'47		
	2586 Nov 14 11:20	0°♄			2591 Nov 21 18:50	0°♂		
	2586 Dec 30 08:58	0°♅						
asc. node	2587 Jan 19 01:15	13°♅28'33		conjunction	2591 Nov 23 12:19	1°♂12'29	0°-8'-22	
	2587 Feb 12 01:43	0°♆		minimum elong	2591 Nov 23 11:58	1°♂11'52	0°08'22	
	2587 Mar 28 03:14	0°♇		behind sun begin	2591 Nov 22 17:56	0°♂40'22		
	2587 May 12 08:08	0°☿		behind sun end	2591 Nov 24 06:00	1°♂43'24		
	2587 Jun 27 17:22	0°♁			2592 Jan 02 17:20	0°♂		
evening set	2587 Jul 24 14:54	17°♁09'33		morning rise	2592 Jan 13 11:32	7°♂55'15		
	2587 Aug 13 19:54	0°♂			2592 Feb 11 21:55	0°♂		
max. Earth dist.	2587 Sep 05 12:06	14°♂24'30	2.67657 AU		2592 Mar 21 22:55	0°♄		
					2592 Apr 29 14:17	0°♅		
conjunction	2587 Sep 08 19:39	16°♂30'58	1°03'48		2592 Jun 07 18:17	0°♆		
minimum elong	2587 Sep 08 20:24	16°♂32'11	1°03'48		2592 Jul 18 15:00	0°♇		
	2587 Sep 29 23:05	0°♂			2592 Sep 01 00:42	0°☿		
morning rise	2587 Oct 23 02:29	14°♂50'54		asc. node	2592 Sep 09 22:37	5°☿33'33		
	2587 Nov 15 12:19	0°♂			2592 Oct 25 01:11	0°♁		
	2587 Dec 31 03:40	0°♂		retrograde	2592 Dec 13 12:38	12°♁51'10		
desc. node	2588 Feb 04 09:29	23°♂35'51		min. Earth dist.	2593 Jan 18 14:43	4°♁27'04	0.63516 AU	
	2588 Feb 13 20:47	0°♂		opposition	2593 Jan 22 12:30	2°♁53'12	4°22'51	
	2588 Mar 28 20:40	0°♂		greatest brilliancy	2593 Jan 21 16:06	3°♁13'37	-1.4m	
	2588 May 11 18:02	0°♄			2593 Jan 29 22:35	30°♂☿		
	2588 Jun 26 15:46	0°♅		direct	2593 Mar 02 03:48	23°☿47'07		
	2588 Sep 01 16:31	0°♆			2593 Apr 05 23:06	0°♁		
retrograde	2588 Sep 13 09:15	0°♆58'30			2593 Jun 11 05:36	0°♂		
	2588 Sep 25 02:32	30°♂♂			2593 Aug 02 08:58	0°♂		
min. Earth dist.	2588 Oct 09 23:25	26°♅24'06	0.40284 AU		2593 Sep 18 20:09	0°♂		
opposition	2588 Oct 16 18:32	24°♅18'55	-3°-10'-28	desc. node	2593 Sep 26 06:17	4°♂54'07		
greatest brilliancy	2588 Oct 15 18:53	24°♅37'08	-2.7m		2593 Nov 02 00:23	0°♂		
direct	2588 Nov 16 06:04	18°♅43'35		evening set	2593 Nov 18 14:20	11°♂46'17		
asc. node	2588 Dec 06 01:13	21°♅09'16		max. Earth dist.	2593 Dec 04 04:06	23°♂04'16	2.43779 AU	
	2589 Jan 01 02:28	0°♆			2593 Dec 13 13:38	0°♂		
	2589 Feb 27 16:53	0°♇						
	2589 Apr 18 22:52	0°☿		conjunction	2594 Jan 13 00:38	22°♂58'03	0°-56'-11	
	2589 Jun 06 21:33	0°♁		minimum elong	2594 Jan 12 22:42	22°♂54'19	0°56'11	
	2589 Jul 25 07:00	0°♂			2594 Jan 22 04:14	0°♂		
evening set	2589 Aug 29 20:20	22°♂22'01			2594 Mar 01 15:02	0°♄		
	2589 Sep 10 19:59	0°♂		morning rise	2594 Mar 18 14:39	13°♄22'16		
max. Earth dist.	2589 Sep 28 02:13	11°♂05'30	2.64518 AU		2594 Apr 08 18:27	0°♅		
					2594 May 17 11:43	0°♆		
conjunction	2589 Oct 14 06:50	21°♂37'18	0°36'58		2594 Jun 26 16:05	0°♇		
minimum elong	2589 Oct 14 07:52	21°♂39'00	0°36'57	asc. node	2594 Jul 28 22:15	22°♂55'51		
	2589 Oct 27 00:37	0°♂			2594 Aug 08 05:18	0°☿		
morning rise	2589 Nov 28 15:16	21°♂51'33			2594 Sep 23 11:23	0°♁		
	2589 Dec 10 13:05	0°♂			2594 Nov 16 18:07	0°♂		
desc. node	2589 Dec 22 08:18	8°♂09'08		retrograde	2595 Jan 17 04:11	17°♂24'42		
	2590 Jan 22 08:48	0°♂		opposition	2595 Feb 26 07:39	7°♂41'57	4°24'49	
	2590 Mar 04 16:41	0°♂		greatest brilliancy	2595 Feb 26 06:31	7°♂43'06	-1.2m	

min. Earth dist.	2595 Feb 26 06:49	7° \mathbb{M} 42'47	0.67760 AU	conjunction	2600 Jul 18 01:55	25° \mathbb{S} 49'37	0°59'41
	2595 Mar 20 23:48	30° \mathbb{R} \mathbb{Q}		minimum elong	2600 Jul 18 00:38	25° \mathbb{S} 47'31	0°59'41
direct	2595 Apr 08 01:27	27° \mathbb{Q} 53'59			2600 Jul 24 10:29	0° \mathbb{Q}	
	2595 Apr 27 11:55	0° \mathbb{M}		max. Earth dist.	2600 Aug 04 12:09	7° \mathbb{Q} 13'25	2.62961 AU
	2595 Jul 09 12:35	0° \mathbb{A}		morning rise	2600 Sep 04 07:03	27° \mathbb{Q} 02'58	
desc. node	2595 Aug 14 05:25	20° \mathbb{A} 35'56			2600 Sep 08 22:05	0° \mathbb{M}	
	2595 Aug 29 08:35	0° \mathbb{M}			2600 Oct 26 11:58	0° \mathbb{A}	
	2595 Oct 13 11:26	0° \mathbb{X}			2600 Dec 14 02:10	0° \mathbb{M}	
	2595 Nov 24 03:25	0° \mathbb{Z}					
	2596 Jan 02 13:25	0° \approx					
evening set	2596 Jan 16 02:47	10° \approx 34'35					
	2596 Feb 09 18:20	0° \mathbb{X}					
	2596 Mar 18 17:42	0° \mathbb{Y}					
conjunction	2596 Mar 23 13:16	3° \mathbb{Y} 46'48	0°-49'-40				
minimum elong	2596 Mar 23 16:34	3° \mathbb{Y} 53'16	0°49'39				
	2596 Apr 26 09:34	0° \mathbb{X}					
max. Earth dist.	2596 May 12 19:37	12° \mathbb{X} 26'00	2.39831 AU				
morning rise	2596 May 31 19:25	26° \mathbb{X} 32'12					
	2596 Jun 05 12:59	0° \mathbb{I}					
asc. node	2596 Jun 14 20:04	6° \mathbb{I} 44'46					
	2596 Jul 17 18:34	0° \mathbb{S}					
	2596 Aug 31 14:21	0° \mathbb{Q}					
	2596 Oct 18 19:16	0° \mathbb{M}					
	2596 Dec 12 17:24	0° \mathbb{A}					
retrograde	2597 Feb 20 13:23	20° \mathbb{A} 42'54					
opposition	2597 Mar 31 17:08	11° \mathbb{A} 39'13	3°08'42				
greatest brilliancy	2597 Apr 01 06:59	11° \mathbb{A} 25'42	-1.3m				
min. Earth dist.	2597 Apr 04 12:45	10° \mathbb{A} 09'41	0.65395 AU				
direct	2597 May 12 04:05	1° \mathbb{A} 36'46					
desc. node	2597 Jul 01 04:03	13° \mathbb{A} 50'57					
	2597 Aug 02 20:19	0° \mathbb{M}					
	2597 Sep 20 16:23	0° \mathbb{X}					
	2597 Nov 02 10:34	0° \mathbb{Z}					
	2597 Dec 12 04:46	0° \approx					
	2598 Jan 19 13:07	0° \mathbb{X}					
	2598 Feb 26 16:20	0° \mathbb{Y}					
evening set	2598 Mar 27 21:23	22° \mathbb{Y} 36'45					
	2598 Apr 06 14:08	0° \mathbb{X}					
asc. node	2598 May 02 19:29	19° \mathbb{X} 36'20					
	2598 May 17 00:53	0° \mathbb{I}					
conjunction	2598 May 29 23:29	9° \mathbb{I} 18'27	0°17'16				
minimum elong	2598 May 29 22:21	9° \mathbb{I} 16'26	0°17'15				
	2598 Jun 28 11:42	0° \mathbb{S}					
max. Earth dist.	2598 Jul 06 01:36	5° \mathbb{S} 12'01	2.53222 AU				
morning rise	2598 Jul 25 08:15	18° \mathbb{S} 13'52					
	2598 Aug 12 02:30	0° \mathbb{Q}					
	2598 Sep 27 20:40	0° \mathbb{M}					
	2598 Nov 16 01:24	0° \mathbb{A}					
	2599 Jan 08 21:15	0° \mathbb{M}					
retrograde	2599 Apr 03 04:00	27° \mathbb{M} 38'47					
opposition	2599 May 09 22:41	19° \mathbb{M} 41'56	0°23'55				
greatest brilliancy	2599 May 10 03:02	19° \mathbb{M} 37'54	-1.7m				
min. Earth dist.	2599 May 17 05:14	17° \mathbb{M} 00'06	0.56623 AU				
desc. node	2599 May 19 02:39	16° \mathbb{M} 19'12					
direct	2599 Jun 19 04:17	10° \mathbb{M} 08'56					
	2599 Aug 21 05:18	0° \mathbb{X}					
	2599 Oct 08 19:19	0° \mathbb{Z}					
	2599 Nov 19 10:31	0° \approx					
	2599 Dec 28 17:51	0° \mathbb{X}					
	2600 Feb 05 14:44	0° \mathbb{Y}					
	2600 Mar 17 05:43	0° \mathbb{X}					
asc. node	2600 Mar 20 19:21	2° \mathbb{X} 39'05					
	2600 Apr 27 09:37	0° \mathbb{I}					
evening set	2600 May 26 06:37	20° \mathbb{I} 15'38					
	2600 Jun 09 11:23	0° \mathbb{S}					

conjunction	2600 Jul 18 01:55	25° $\overline{54}$ 9'37	0°59'41		2605 Jun 04 10:28	0° Υ	
minimum elong	2600 Jul 18 00:38	25° $\overline{54}$ 7'31	0°59'41		2605 Jul 17 05:58	0° \mathcal{B}	
	2600 Jul 24 10:29	0° Ω			2605 Sep 06 18:59	0° Π	
max. Earth dist.	2600 Aug 04 12:09	7° Ω 13'25	2.62961 AU	retrograde	2605 Oct 19 02:42	10° Π 56'30	
morning rise	2600 Sep 04 07:03	27° Ω 02'58		asc. node	2605 Nov 10 16:33	7° Π 15'39	
	2600 Sep 08 22:05	0° \mathfrak{M}		min. Earth dist.	2605 Nov 16 18:43	5° Π 15'09	0.47908 AU
	2600 Oct 26 11:58	0° $\underline{\mathfrak{A}}$		opposition	2605 Nov 24 23:49	2° Π 18'05	0°47'13
	2600 Dec 14 02:10	0° \mathfrak{M}		greatest brilliancy	2605 Nov 24 14:01	2° Π 26'56	-2.2m
	2601 Feb 02 14:36	0° \mathcal{X}			2605 Dec 01 14:39	30° $\mathcal{R}\mathcal{B}$	
	2601 Mar 31 15:33	0° $\overline{\mathfrak{C}}$		direct	2605 Dec 28 10:59	25° \mathcal{B} 16'30	
desc. node	2601 Apr 06 01:57	2° $\overline{\mathfrak{C}}$ 24'59			2606 Jan 26 04:41	0° Π	
retrograde	2601 May 30 12:52	16° $\overline{\mathfrak{C}}$ 25'50			2606 Apr 02 11:30	0° $\overline{\mathfrak{C}}$	
opposition	2601 Jul 02 03:21	10° $\overline{\mathfrak{C}}$ 23'28	-4°-24'-15		2606 May 25 04:54	0° Ω	
greatest brilliancy	2601 Jul 03 19:48	9° $\overline{\mathfrak{C}}$ 51'36	-2.4m		2606 Jul 14 03:40	0° \mathfrak{M}	
min. Earth dist.	2601 Jul 10 02:41	7° $\overline{\mathfrak{C}}$ 53'51	0.43609 AU		2606 Aug 31 07:45	0° $\underline{\mathfrak{A}}$	
direct	2601 Aug 06 11:09	3° $\overline{\mathfrak{C}}$ 06'55		evening set	2606 Sep 22 13:17	14° $\underline{\mathfrak{A}}$ 14'59	
	2601 Oct 17 10:25	0° \approx		max. Earth dist.	2606 Oct 14 22:11	28° $\underline{\mathfrak{A}}$ 53'33	2.60030 AU
	2601 Dec 01 10:12	0° \mathcal{H}			2606 Oct 16 14:18	0° \mathfrak{M}	
	2602 Jan 12 04:38	0° Υ					
asc. node	2602 Feb 05 17:52	17° Υ 44'11		conjunction	2606 Nov 08 00:10	15° \mathfrak{M} 01'57	0°10'56
	2602 Feb 22 20:49	0° \mathcal{B}		minimum elong	2606 Nov 08 00:34	15° \mathfrak{M} 02'38	0°10'56
	2602 Apr 06 15:45	0° Π		behind sun begin	2606 Nov 07 09:45	14° \mathfrak{M} 37'32	
	2602 May 21 00:02	0° $\overline{\mathfrak{C}}$		behind sun end	2606 Nov 08 15:23	15° \mathfrak{M} 27'45	
	2602 Jul 05 19:56	0° Ω		desc. node	2606 Nov 26 23:16	28° \mathfrak{M} 02'05	
evening set	2602 Jul 10 05:43	2° Ω 50'44			2606 Nov 29 19:16	0° \mathcal{X}	
	2602 Aug 21 15:28	0° \mathfrak{M}		morning rise	2606 Dec 26 00:39	18° \mathcal{X} 28'40	
					2607 Jan 11 00:37	0° $\overline{\mathfrak{C}}$	
conjunction	2602 Aug 26 13:22	3° \mathfrak{M} 07'43	1°08'01		2607 Feb 20 13:51	0° \approx	
minimum elong	2602 Aug 26 13:41	3° \mathfrak{M} 08'13	1°08'01		2607 Mar 31 23:41	0° \mathcal{H}	
max. Earth dist.	2602 Aug 28 17:30	4° \mathfrak{M} 30'41	2.67400 AU		2607 May 09 23:27	0° Υ	
	2602 Oct 07 18:34	0° $\underline{\mathfrak{A}}$			2607 Jun 18 12:44	0° \mathcal{B}	
morning rise	2602 Oct 10 07:15	1° $\underline{\mathfrak{A}}$ 36'44			2607 Jul 30 02:17	0° Π	
	2602 Nov 23 15:48	0° \mathfrak{M}			2607 Sep 14 15:30	0° $\overline{\mathfrak{C}}$	
	2603 Jan 09 01:40	0° \mathcal{X}		asc. node	2607 Sep 28 14:34	7° $\overline{\mathfrak{C}}$ 47'50	
desc. node	2603 Feb 22 00:52	28° \mathcal{X} 36'54		retrograde	2607 Dec 01 04:27	28° $\overline{\mathfrak{C}}$ 06'45	
	2603 Feb 24 03:54	0° $\overline{\mathfrak{C}}$		min. Earth dist.	2608 Jan 04 09:16	20° $\overline{\mathfrak{C}}$ 21'22	0.60116 AU
	2603 Apr 11 12:03	0° \approx		opposition	2608 Jan 09 18:17	18° $\overline{\mathfrak{C}}$ 13'27	3°55'29
	2603 May 30 00:48	0° \mathcal{H}		greatest brilliancy	2608 Jan 08 16:38	18° $\overline{\mathfrak{C}}$ 38'56	-1.6m
	2603 Aug 11 21:32	0° Υ		direct	2608 Feb 16 05:00	9° $\overline{\mathfrak{C}}$ 32'38	
retrograde	2603 Aug 18 16:10	0° Υ 18'28			2608 Apr 25 20:13	0° Ω	
	2603 Aug 25 09:44	30° $\mathcal{R}\mathcal{H}$			2608 Jun 21 16:13	0° \mathfrak{M}	
min. Earth dist.	2603 Sep 15 14:27	25° \mathcal{H} 44'18	0.37484 AU		2608 Aug 11 01:58	0° $\underline{\mathfrak{A}}$	
opposition	2603 Sep 18 10:04	24° \mathcal{H} 58'32	-5°-50'-56		2608 Sep 27 00:41	0° \mathfrak{M}	
greatest brilliancy	2603 Sep 17 21:10	25° \mathcal{H} 07'17	-2.9m	desc. node	2608 Oct 13 22:11	11° \mathfrak{M} 16'53	
direct	2603 Oct 17 21:06	20° \mathcal{H} 02'39		evening set	2608 Nov 01 05:53	23° \mathfrak{M} 48'40	
	2603 Nov 28 17:39	0° Υ			2608 Nov 10 03:04	0° \mathcal{X}	
asc. node	2603 Dec 24 16:47	12° Υ 36'55		max. Earth dist.	2608 Nov 15 20:33	4° \mathcal{X} 01'43	2.48967 AU
	2604 Jan 24 00:46	0° \mathcal{B}			2608 Dec 21 19:19	0° $\overline{\mathfrak{C}}$	
	2604 Mar 12 10:24	0° Π					
	2604 Apr 28 21:12	0° $\overline{\mathfrak{C}}$		conjunction	2608 Dec 22 20:52	0° $\overline{\mathfrak{C}}$ 47'12	0°-39'-35
	2604 Jun 15 12:54	0° Ω		minimum elong	2608 Dec 22 19:08	0° $\overline{\mathfrak{C}}$ 43'59	0°39'35
	2604 Aug 02 07:13	0° \mathfrak{M}			2609 Jan 30 14:32	0° \approx	
evening set	2604 Aug 16 12:52	8° \mathfrak{M} 58'36		morning rise	2609 Feb 19 03:50	15° \approx 06'25	
	2604 Sep 18 14:47	0° $\underline{\mathfrak{A}}$			2609 Mar 10 05:47	0° \mathcal{H}	
max. Earth dist.	2604 Sep 19 15:26	0° $\underline{\mathfrak{A}}$ 39'28	2.66383 AU		2609 Apr 17 12:31	0° Υ	
					2609 May 26 07:59	0° \mathcal{B}	
conjunction	2604 Sep 30 22:33	7° $\underline{\mathfrak{A}}$ 54'40	0°49'54		2609 Jul 05 15:15	0° Π	
minimum elong	2604 Sep 30 23:39	7° $\underline{\mathfrak{A}}$ 56'26	0°49'53	asc. node	2609 Aug 15 13:36	28° Π 39'31	
	2604 Nov 03 21:16	0° \mathfrak{M}			2609 Aug 17 13:31	0° $\overline{\mathfrak{C}}$	
morning rise	2604 Nov 14 11:25	6° \mathfrak{M} 59'35			2609 Oct 04 05:07	0° Ω	
	2604 Dec 18 18:00	0° \mathcal{X}			2609 Dec 07 08:58	0° \mathfrak{M}	
desc. node	2605 Jan 08 23:40	14° \mathcal{X} 33'22		retrograde	2610 Jan 04 21:48	4° \mathfrak{M} 36'00	
	2605 Jan 31 03:38	0° $\overline{\mathfrak{C}}$			2610 Jan 31 05:19	30° $\mathcal{R}\mathcal{Q}$	
	2605 Mar 14 05:40	0° \approx		min. Earth dist.	2610 Feb 12 13:44	25° Ω 21'20	0.66884 AU
	2605 Apr 24 09:30	0° \mathcal{H}		opposition	2610 Feb 14 03:08	24° Ω 43'50	4°34'05

greatest brilliancy	2610 Feb 13 18:13	24°♄52'47	-1.3m		2615 Feb 14 19:18	0°♑	
direct	2610 Mar 26 04:49	15°♄09'00			2615 Mar 26 01:23	0°♄	
	2610 May 22 21:27	0°♎		asc. node	2615 Apr 07 10:49	9°♄15'09	
	2610 Jul 20 06:50	0°♊			2615 May 05 20:40	0°♈	
desc. node	2610 Aug 31 20:18	25°♊50'23		evening set	2615 May 06 08:02	0°♈20'25	
	2610 Sep 07 08:11	0°♎			2615 Jun 17 15:00	0°♄	
	2610 Oct 21 23:26	0°♊					
	2610 Dec 02 13:28	0°♄		conjunction	2615 Jul 01 14:15	9°♄30'10	0°47'42
evening set	2610 Dec 22 22:20	15°♄19'35		minimum elong	2615 Jul 01 12:32	9°♄27'16	0°47'41
	2611 Jan 11 00:41	0°♌		max. Earth dist.	2615 Jul 26 00:39	25°♄48'59	2.59760 AU
max. Earth dist.	2611 Feb 10 08:17	23°♌43'15	2.37149 AU		2615 Aug 01 09:09	0°♄	
	2611 Feb 18 07:17	0°♋		morning rise	2615 Aug 21 06:54	12°♄58'14	
					2615 Sep 16 20:59	0°♎	
conjunction	2611 Feb 24 02:46	4°♋35'26	-1°-3'-35		2615 Nov 03 20:52	0°♊	
minimum elong	2611 Feb 24 03:58	4°♋37'49	1°03'37		2615 Dec 23 17:52	0°♎	
	2611 Mar 28 07:30	0°♑			2616 Feb 16 04:00	0°♊	
	2611 May 05 22:48	0°♄		desc. node	2616 Apr 22 16:38	24°♊24'15	
morning rise	2611 May 06 04:20	0°♄10'34		retrograde	2616 May 05 08:24	25°♊20'44	
	2611 Jun 15 00:52	0°♈		opposition	2616 Jun 08 19:55	18°♊26'39	-2°-18'-7
asc. node	2611 Jul 03 13:44	13°♈22'56		greatest brilliancy	2616 Jun 09 20:52	18°♊05'10	-2.1m
	2611 Jul 27 06:39	0°♄		min. Earth dist.	2616 Jun 17 06:22	15°♊33'16	0.48850 AU
	2611 Sep 10 09:19	0°♄		direct	2616 Jul 16 16:10	9°♊58'13	
	2611 Oct 29 20:33	0°♎			2616 Sep 15 20:26	0°♄	
	2611 Dec 31 04:03	0°♊			2616 Nov 01 20:18	0°♌	
retrograde	2612 Feb 08 10:31	7°♊50'18			2616 Dec 13 03:10	0°♋	
	2612 Mar 15 05:26	30°♎			2617 Jan 22 04:51	0°♑	
opposition	2612 Mar 19 02:44	28°♎28'36	3°47'11	asc. node	2617 Feb 22 10:26	23°♑10'27	
greatest brilliancy	2612 Mar 19 12:05	28°♎19'22	-1.2m		2617 Mar 03 18:14	0°♄	
min. Earth dist.	2612 Mar 21 10:19	27°♎33'40	0.67102 AU		2617 Apr 14 16:59	0°♈	
direct	2612 Apr 29 11:07	18°♎28'12			2617 May 28 10:13	0°♄	
	2612 Jun 17 09:51	0°♊		evening set	2617 Jun 23 21:51	17°♄37'11	
desc. node	2612 Jul 18 19:03	14°♊53'01			2617 Jul 12 19:50	0°♄	
	2612 Aug 14 13:31	0°♎					
	2612 Sep 30 07:53	0°♊		conjunction	2617 Aug 11 20:45	19°♄23'40	1°08'18
	2612 Nov 11 12:01	0°♄		minimum elong	2617 Aug 11 20:29	19°♄23'14	1°08'19
	2612 Dec 21 01:22	0°♌		max. Earth dist.	2617 Aug 19 16:40	24°♄24'33	2.66329 AU
	2613 Jan 28 07:16	0°♋			2617 Aug 28 10:40	0°♎	
greatest brilliancy	2613 Feb 05 17:01	6°♋38'37	1.2m	morning rise	2617 Sep 26 12:54	18°♎30'22	
evening set	2613 Mar 01 00:42	25°♋02'53			2617 Oct 14 15:57	0°♊	
	2613 Mar 07 08:03	0°♑			2617 Dec 01 00:44	0°♎	
	2613 Apr 15 02:28	0°♄			2618 Jan 17 12:47	0°♊	
					2618 Mar 06 19:18	0°♄	
conjunction	2613 May 07 01:21	16°♄31'12	0°-8'-50	desc. node	2618 Mar 10 16:30	2°♄22'03	
minimum elong	2613 May 07 02:05	16°♄32'33	0°08'50		2618 Apr 27 01:06	0°♌	
behind sun begin	2613 May 06 03:08	15°♄49'54		retrograde	2618 Jul 17 13:11	28°♌47'29	
behind sun end	2613 May 08 01:02	17°♄15'10		opposition	2618 Aug 16 17:25	23°♌49'17	-6°-48'-4
asc. node	2613 May 20 12:19	26°♄26'59		greatest brilliancy	2618 Aug 17 14:19	23°♌35'14	-2.8m
	2613 May 25 09:05	0°♈		min. Earth dist.	2618 Aug 19 09:00	23°♌06'38	0.37780 AU
max. Earth dist.	2613 Jun 21 15:52	19°♈31'41	2.48163 AU	direct	2618 Sep 16 08:08	18°♌34'46	
	2613 Jul 06 16:18	0°♄			2618 Oct 30 11:46	0°♋	
morning rise	2613 Jul 07 08:20	0°♄27'42			2618 Dec 22 09:41	0°♑	
	2613 Aug 20 06:26	0°♄		asc. node	2619 Jan 10 08:54	12°♑14'47	
	2613 Oct 06 08:31	0°♎			2619 Feb 06 05:09	0°♄	
	2613 Nov 25 20:37	0°♊			2619 Mar 23 07:57	0°♈	
	2614 Jan 24 12:20	0°♎			2619 May 08 03:42	0°♄	
retrograde	2614 Mar 17 18:44	12°♎39'16			2619 Jun 23 21:41	0°♄	
opposition	2614 Apr 24 16:23	4°♎11'49	1°40'33	evening set	2619 Aug 03 01:44	25°♄29'05	
greatest brilliancy	2614 Apr 25 05:43	3°♎59'06	-1.5m		2619 Aug 10 04:48	0°♎	
min. Earth dist.	2614 Apr 30 16:58	1°♎54'00	0.60761 AU	max. Earth dist.	2619 Sep 11 16:28	20°♎37'17	2.67441 AU
	2614 May 05 21:40	30°♎					
direct	2614 Jun 04 16:43	24°♊19'16		conjunction	2619 Sep 17 20:27	24°♎33'01	0°59'39
desc. node	2614 Jun 05 18:05	24°♊19'42		minimum elong	2619 Sep 17 21:23	24°♎34'32	0°59'39
	2614 Jul 06 10:25	0°♎			2619 Sep 26 09:12	0°♊	
	2614 Sep 05 00:46	0°♊		morning rise	2619 Nov 01 01:57	23°♊00'10	
	2614 Oct 20 00:07	0°♄			2619 Nov 11 19:46	0°♎	
	2614 Nov 29 13:34	0°♌			2619 Dec 27 04:00	0°♊	
	2615 Jan 07 07:59	0°♋		desc. node	2620 Jan 26 15:41	20°♊37'10	

	2620 Feb 09 08:26	0°☾			2625 Jul 28 22:51	0°♊		
	2620 Mar 23 12:34	0°♊			2625 Sep 14 22:24	0°♌		
	2620 May 05 02:58	0°♋		desc. node	2625 Sep 17 11:54	1°♌40'30		
	2620 Jun 17 09:16	0°♍			2625 Oct 29 06:49	0°♏		
	2620 Aug 04 22:17	0°♎		evening set	2625 Nov 30 21:19	23°♏22'44		
retrograde	2620 Sep 28 01:31	16°♎58'57			2625 Dec 09 20:46	0°♐		
min. Earth dist.	2620 Oct 24 22:41	12°♎06'51	0.42731 AU	max. Earth dist.	2625 Dec 19 20:00	7°♐26'20	2.40989 AU	
opposition	2620 Nov 01 20:51	9°♎31'14	-1°-33'-35		2626 Jan 18 10:20	0°♑		
greatest brilliancy	2620 Nov 01 05:23	9°♎43'56	-2.6m					
asc. node	2620 Nov 27 07:31	3°♎39'36		conjunction	2626 Jan 27 21:25	7°♑20'14	-1°-2'-21	
direct	2620 Dec 03 08:09	3°♎24'59		minimum elong	2626 Jan 27 20:04	7°♑17'37	1°02'22	
	2621 Feb 19 12:59	0°♐			2626 Feb 25 19:23	0°♋		
	2621 Apr 13 14:43	0°♑			2626 Apr 04 21:11	0°♍		
	2621 Jun 02 14:12	0°♒		morning rise	2626 Apr 05 18:25	0°♍41'40		
	2621 Jul 21 11:02	0°♎			2626 May 13 12:58	0°♎		
	2621 Sep 07 05:00	0°♊			2626 Jun 22 15:15	0°♐		
evening set	2621 Sep 08 01:03	0°♊31'58		asc. node	2626 Jul 20 05:19	19°♐45'20		
max. Earth dist.	2621 Oct 04 17:36	17°♊43'47	2.63146 AU		2626 Aug 03 23:57	0°♑		
					2626 Sep 18 15:52	0°♒		
conjunction	2621 Oct 23 16:32	0°♌10'17	0°28'07		2626 Nov 09 10:12	0°♎		
minimum elong	2621 Oct 23 17:25	0°♌11'44	0°28'06	retrograde	2627 Jan 25 20:44	25°♎10'09		
	2621 Oct 23 10:19	0°♌		opposition	2627 Mar 06 21:06	15°♎34'01	4°14'09	
	2621 Dec 06 20:17	0°♏		greatest brilliancy	2627 Mar 07 00:01	15°♎31'07	-1.2m	
morning rise	2621 Dec 08 18:09	1°♏19'10		min. Earth dist.	2627 Mar 07 16:16	15°♎14'56	0.67801 AU	
desc. node	2621 Dec 13 14:17	4°♏40'18		direct	2627 Apr 16 21:16	5°♎40'41		
	2622 Jan 18 10:55	0°♐			2627 Jul 03 02:40	0°♊		
	2622 Feb 28 11:56	0°♑		desc. node	2627 Aug 05 10:20	18°♊18'52		
	2622 Apr 09 10:04	0°♋			2627 Aug 24 18:11	0°♌		
	2622 May 18 22:26	0°♍			2627 Oct 09 09:31	0°♏		
	2622 Jun 28 03:38	0°♎			2627 Nov 20 05:59	0°♐		
	2622 Aug 10 02:13	0°♐			2627 Dec 29 17:28	0°♑		
	2622 Oct 01 09:08	0°♑		evening set	2628 Feb 01 11:39	26°♑28'29		
asc. node	2622 Oct 15 07:27	5°♑41'44			2628 Feb 05 22:41	0°♋		
retrograde	2622 Nov 15 19:03	11°♑49'32			2628 Mar 14 22:11	0°♍		
min. Earth dist.	2622 Dec 17 21:42	4°♑48'39	0.55809 AU					
opposition	2622 Dec 24 15:30	2°♑11'31	3°06'52	conjunction	2628 Apr 09 21:08	20°♍14'16	0°-36'-19	
greatest brilliancy	2622 Dec 23 12:37	2°♑37'43	-1.8m	minimum elong	2628 Apr 10 00:07	20°♍20'01	0°36'17	
	2622 Dec 30 10:29	30°♒♐			2628 Apr 22 14:11	0°♎		
direct	2623 Jan 29 16:31	24°♐02'41		max. Earth dist.	2628 May 31 09:08	29°♎00'52	2.42718 AU	
	2623 Mar 04 01:54	0°♑			2628 Jun 01 17:31	0°♐		
	2623 May 09 03:56	0°♒		asc. node	2628 Jun 06 04:42	3°♐15'05		
	2623 Jul 01 03:36	0°♎		morning rise	2628 Jun 15 14:25	10°♐02'20		
	2623 Aug 19 10:36	0°♊			2628 Jul 13 22:18	0°♑		
	2623 Oct 05 01:04	0°♌			2628 Aug 27 14:04	0°♒		
evening set	2623 Oct 16 15:01	7°♌43'13			2628 Oct 14 05:43	0°♎		
desc. node	2623 Oct 31 13:12	17°♌49'59			2628 Dec 05 22:39	0°♊		
max. Earth dist.	2623 Nov 02 10:06	19°♌06'50	2.53768 AU	retrograde	2629 Mar 02 01:15	28°♊47'23		
	2623 Nov 18 03:30	0°♏		opposition	2629 Apr 09 19:24	19°♊55'16	2°40'23	
				greatest brilliancy	2629 Apr 10 10:18	19°♊40'49	-1.4m	
conjunction	2623 Dec 04 13:45	11°♏35'48	0°-19'-55	min. Earth dist.	2629 Apr 14 10:15	18°♊07'40	0.63999 AU	
minimum elong	2623 Dec 04 12:52	11°♏34'15	0°19'55	direct	2629 May 21 04:17	9°♊54'14		
	2623 Dec 30 00:00	0°♐		desc. node	2629 Jun 22 09:40	15°♊34'03		
morning rise	2624 Jan 26 17:23	20°♐38'46			2629 Jul 26 11:32	0°♌		
	2624 Feb 08 01:21	0°♑			2629 Sep 15 15:14	0°♏		
	2624 Mar 17 22:41	0°♋			2629 Oct 29 00:17	0°♐		
	2624 Apr 25 10:37	0°♍			2629 Dec 08 00:23	0°♑		
	2624 Jun 03 10:38	0°♎			2630 Jan 15 11:43	0°♋		
	2624 Jul 14 00:22	0°♐			2630 Feb 22 17:15	0°♍		
	2624 Aug 26 15:54	0°♑			2630 Apr 02 17:16	0°♎		
asc. node	2624 Sep 01 06:55	3°♑38'28		evening set	2630 Apr 12 14:07	7°♎25'42		
	2624 Oct 16 03:20	0°♒		asc. node	2630 Apr 24 03:42	16°♎01'58		
retrograde	2624 Dec 22 10:25	21°♒16'30			2630 May 13 06:00	0°♐		
min. Earth dist.	2625 Jan 28 11:30	12°♒33'23	0.64979 AU					
opposition	2625 Jan 31 13:28	11°♒19'11	4°31'09	conjunction	2630 Jun 12 02:49	21°♐13'44	0°29'59	
greatest brilliancy	2625 Jan 30 20:50	11°♒35'53	-1.3m	minimum elong	2630 Jun 12 01:12	21°♐10'54	0°29'57	
direct	2625 Mar 11 18:17	2°♒01'49			2630 Jun 24 18:25	0°♑		
	2625 Jun 05 03:55	0°♎		max. Earth dist.	2630 Jul 14 12:29	13°♑27'19	2.55752 AU	

morning rise	2630 Aug 05 04:07	27° \mathfrak{S} 53'21		opposition	2635 Oct 05 23:43	12° Υ 21'16	-4°-25'-51
	2630 Aug 08 09:03	0° \mathcal{O}		greatest brilliancy	2635 Oct 05 00:42	12° Υ 38'00	-2.8m
	2630 Sep 23 23:24	0° \mathfrak{M}		direct	2635 Nov 04 20:43	7° Υ 07'54	
	2630 Nov 11 14:42	0° \mathfrak{L}		asc. node	2635 Dec 15 01:17	16° Υ 13'59	
	2631 Jan 02 13:01	0° \mathfrak{M}			2636 Jan 13 05:26	0° \mathcal{R}	
	2631 Mar 07 19:44	0° \mathfrak{A}			2636 Mar 05 08:46	0° \mathfrak{I}	
retrograde	2631 Apr 14 23:22	7° \mathfrak{A} 19'21			2636 Apr 23 04:07	0° \mathfrak{S}	
desc. node	2631 May 10 09:04	3° \mathfrak{A} 18'12			2636 Jun 10 11:21	0° \mathcal{O}	
	2631 May 20 04:30	30° \mathfrak{R} \mathfrak{M}			2636 Jul 28 13:40	0° \mathfrak{M}	
opposition	2631 May 21 00:07	29° \mathfrak{M} 42'14	0°-29'-2	evening set	2636 Aug 24 17:44	17° \mathfrak{M} 06'08	
greatest brilliancy	2631 May 21 05:25	29° \mathfrak{M} 37'26	-1.9m		2636 Sep 14 00:36	0° \mathfrak{L}	
min. Earth dist.	2631 May 28 20:15	26° \mathfrak{M} 51'30	0.54004 AU	max. Earth dist.	2636 Sep 25 01:26	7° \mathfrak{L} 04'35	2.65463 AU
direct	2631 Jun 29 13:35	20° \mathfrak{M} 26'19					
	2631 Aug 09 12:30	0° \mathfrak{A}		conjunction	2636 Oct 09 02:28	16° \mathfrak{L} 09'00	0°42'43
	2631 Oct 02 11:05	0° \mathfrak{Z}		minimum elong	2636 Oct 09 03:34	16° \mathfrak{L} 10'46	0°42'43
	2631 Nov 14 05:41	0° \approx			2636 Oct 30 06:39	0° \mathfrak{M}	
	2631 Dec 24 00:38	0° \mathfrak{H}		morning rise	2636 Nov 23 00:10	15° \mathfrak{M} 47'16	
	2632 Feb 01 04:53	0° Υ			2636 Dec 13 23:36	0° \mathfrak{A}	
asc. node	2632 Mar 11 01:53	29° Υ 15'42		desc. node	2636 Dec 30 05:44	11° \mathfrak{A} 11'19	
	2632 Mar 12 01:48	0° \mathcal{R}			2637 Jan 26 01:56	0° \mathfrak{Z}	
	2632 Apr 22 10:40	0° \mathfrak{I}			2637 Mar 08 18:01	0° \approx	
	2632 Jun 04 16:41	0° \mathfrak{S}			2637 Apr 18 09:04	0° \mathfrak{H}	
evening set	2632 Jun 06 04:51	1° \mathfrak{S} 01'19			2637 May 28 17:03	0° Υ	
	2632 Jul 19 18:24	0° \mathcal{O}			2637 Jul 09 04:19	0° \mathcal{R}	
					2637 Aug 24 11:07	0° \mathfrak{I}	
conjunction	2632 Jul 27 09:52	4° \mathcal{O} 59'09	1°04'15	retrograde	2637 Oct 29 18:36	23° \mathfrak{I} 15'07	
minimum elong	2632 Jul 27 08:57	4° \mathcal{O} 57'39	1°04'14	asc. node	2637 Oct 31 23:47	23° \mathfrak{I} 12'57	
max. Earth dist.	2632 Aug 10 04:45	13° \mathcal{O} 55'16	2.64406 AU	min. Earth dist.	2637 Nov 28 16:09	17° \mathfrak{I} 04'00	0.50840 AU
	2632 Sep 04 06:18	0° \mathfrak{M}		opposition	2637 Dec 06 12:00	14° \mathfrak{I} 08'52	1°48'54
morning rise	2632 Sep 12 12:44	5° \mathfrak{M} 16'01		greatest brilliancy	2637 Dec 05 16:02	14° \mathfrak{I} 27'33	-2.1m
	2632 Oct 21 15:59	0° \mathfrak{L}		direct	2638 Jan 09 22:27	6° \mathfrak{I} 40'24	
	2632 Dec 08 17:20	0° \mathfrak{M}			2638 Mar 24 20:01	0° \mathfrak{S}	
	2633 Jan 26 21:01	0° \mathfrak{A}			2638 May 19 05:41	0° \mathcal{O}	
	2633 Mar 20 05:54	0° \mathfrak{Z}			2638 Jul 09 01:25	0° \mathfrak{M}	
desc. node	2633 Mar 27 07:43	3° \mathfrak{Z} 44'52			2638 Aug 26 14:06	0° \mathfrak{L}	
	2633 Jun 06 01:14	0° \approx		evening set	2638 Oct 01 02:26	22° \mathfrak{L} 50'17	
retrograde	2633 Jun 15 18:41	0° \approx 33'54			2638 Oct 11 23:25	0° \mathfrak{M}	
	2633 Jun 25 05:53	30° \mathfrak{R} \mathfrak{Z}		max. Earth dist.	2638 Oct 21 08:39	6° \mathfrak{M} 14'49	2.58001 AU
opposition	2633 Jul 17 04:44	25° \mathfrak{Z} 00'27	-5°-33'-40				
greatest brilliancy	2633 Jul 18 22:47	24° \mathfrak{Z} 29'17	-2.6m	conjunction	2638 Nov 17 05:53	24° \mathfrak{M} 30'46	0°00'-1
min. Earth dist.	2633 Jul 24 00:58	22° \mathfrak{Z} 59'13	0.41032 AU	minimum elong	2638 Nov 17 05:50	24° \mathfrak{M} 30'41	0°00'03
direct	2633 Aug 19 21:21	18° \mathfrak{Z} 30'25		behind sun begin	2638 Nov 16 11:29	23° \mathfrak{M} 59'05	
	2633 Oct 02 12:39	0° \approx		behind sun end	2638 Nov 18 00:11	25° \mathfrak{M} 02'19	
	2633 Nov 22 16:39	0° \mathfrak{H}		desc. node	2638 Nov 17 04:26	24° \mathfrak{M} 28'19	
	2634 Jan 05 05:41	0° Υ			2638 Nov 25 03:57	0° \mathfrak{A}	
asc. node	2634 Jan 27 01:24	15° Υ 22'56		morning rise	2639 Jan 05 17:35	29° \mathfrak{A} 36'37	
	2634 Feb 16 20:25	0° \mathcal{R}			2639 Jan 06 06:25	0° \mathfrak{Z}	
	2634 Apr 01 05:31	0° \mathfrak{I}			2639 Feb 15 15:37	0° \approx	
	2634 May 15 23:33	0° \mathfrak{S}			2639 Mar 26 20:42	0° \mathfrak{H}	
	2634 Jul 01 01:39	0° \mathcal{O}			2639 May 04 15:26	0° Υ	
evening set	2634 Jul 19 03:22	11° \mathcal{O} 35'19			2639 Jun 12 22:23	0° \mathcal{R}	
	2634 Aug 17 00:34	0° \mathfrak{M}			2639 Jul 23 23:36	0° \mathfrak{I}	
					2639 Sep 07 00:02	0° \mathfrak{S}	
conjunction	2634 Sep 03 18:29	11° \mathfrak{M} 17'07	1°06'00	asc. node	2639 Sep 18 22:43	7° \mathfrak{S} 12'22	
minimum elong	2634 Sep 03 19:05	11° \mathfrak{M} 18'04	1°06'00		2639 Nov 04 06:17	0° \mathcal{O}	
max. Earth dist.	2634 Sep 02 22:46	10° \mathfrak{M} 45'47	2.67655 AU	retrograde	2639 Dec 09 12:00	7° \mathcal{O} 09'12	
	2634 Oct 03 03:41	0° \mathfrak{L}			2640 Jan 11 07:04	30° \mathfrak{R} \mathfrak{S}	
morning rise	2634 Oct 18 04:31	9° \mathfrak{L} 36'56		min. Earth dist.	2640 Jan 13 18:13	29° \mathfrak{S} 02'00	0.62105 AU
	2634 Nov 18 20:28	0° \mathfrak{M}		greatest brilliancy	2640 Jan 17 09:02	27° \mathfrak{S} 35'22	-1.5m
	2635 Jan 03 19:56	0° \mathfrak{A}		opposition	2640 Jan 18 08:16	27° \mathfrak{S} 12'09	4°13'51
desc. node	2635 Feb 12 06:49	26° \mathfrak{A} 07'20		direct	2640 Feb 25 11:20	18° \mathfrak{S} 16'49	
	2635 Feb 18 02:32	0° \mathfrak{Z}			2640 Apr 15 09:19	0° \mathcal{O}	
	2635 Apr 03 23:40	0° \approx			2640 Jun 15 13:41	0° \mathfrak{M}	
	2635 May 19 09:06	0° \mathfrak{H}			2640 Aug 05 23:00	0° \mathfrak{L}	
	2635 Jul 08 03:24	0° Υ			2640 Sep 22 05:48	0° \mathfrak{M}	
retrograde	2635 Sep 03 20:02	18° Υ 21'33		desc. node	2640 Oct 04 03:18	7° \mathfrak{M} 53'09	
min. Earth dist.	2635 Sep 30 15:42	13° Υ 53'57	0.38704 AU		2640 Nov 05 10:34	0° \mathfrak{A}	

evening set	2640 Nov 11 10:33	4°♂13'13		behind sun end	2645 May 21 23:27	1°♂01'01	
max. Earth dist.	2640 Nov 26 01:40	14°♂39'12	2.46114 AU	max. Earth dist.	2645 Jul 01 02:32	29°♂27'04	2.51028 AU
	2640 Dec 17 02:15	0°♂			2645 Jul 01 21:35	0°♂	
				morning rise	2645 Jul 18 10:52	11°♂19'43	
conjunction	2641 Jan 04 00:33	13°♂23'26	0°-49'-44		2645 Aug 15 10:29	0°♂	
minimum elong	2641 Jan 03 22:33	13°♂19'39	0°49'44		2645 Oct 01 06:21	0°♂	
	2641 Jan 25 19:46	0°♂			2645 Nov 19 21:11	0°♂	
	2641 Mar 05 08:51	0°♂			2646 Jan 14 10:58	0°♂	
morning rise	2641 Mar 06 17:37	1°♂04'18		retrograde	2646 Mar 27 10:46	21°♂30'38	
greatest brilliancy	2641 Apr 06 01:37	24°♂54'21	1.2m	opposition	2646 May 03 18:05	13°♂19'09	0°58'22
	2641 Apr 12 13:36	0°♂		greatest brilliancy	2646 May 04 03:20	13°♂10'27	-1.6m
	2641 May 21 07:14	0°♂		min. Earth dist.	2646 May 10 11:25	10°♂47'28	0.58582 AU
	2641 Jun 30 11:24	0°♂		desc. node	2646 May 26 23:53	5°♂38'00	
asc. node	2641 Aug 05 22:33	25°♂48'21		direct	2646 Jun 13 08:56	3°♂35'55	
	2641 Aug 12 02:12	0°♂			2646 Aug 28 00:36	0°♂	
	2641 Sep 27 17:22	0°♂			2646 Oct 13 18:59	0°♂	
	2641 Nov 23 09:13	0°♂			2646 Nov 23 22:36	0°♂	
retrograde	2642 Jan 12 12:41	12°♂27'13			2647 Jan 01 23:52	0°♂	
opposition	2642 Feb 21 17:23	2°♂39'42	4°30'04		2647 Feb 09 15:43	0°♂	
min. Earth dist.	2642 Feb 20 23:48	2°♂57'18	0.67493 AU		2647 Mar 21 01:39	0°♂	
greatest brilliancy	2642 Feb 21 12:44	2°♂44'21	-1.2m	asc. node	2647 Mar 28 19:29	5°♂46'28	
	2642 Feb 28 11:36	30°♂			2647 May 01 00:11	0°♂	
direct	2642 Apr 03 04:34	22°♂57'15		evening set	2647 May 18 12:25	12°♂25'19	
	2642 May 10 16:07	0°♂			2647 Jun 12 21:10	0°♂	
	2642 Jul 14 01:04	0°♂					
desc. node	2642 Aug 22 02:27	23°♂03'40		conjunction	2647 Jul 11 18:32	19°♂28'44	0°55'18
	2642 Sep 02 02:58	0°♂		minimum elong	2647 Jul 11 17:02	19°♂26'13	0°55'17
	2642 Oct 17 02:11	0°♂			2647 Jul 27 16:38	0°♂	
	2642 Nov 27 18:26	0°♂		max. Earth dist.	2647 Aug 01 05:46	2°♂58'48	2.61621 AU
evening set	2643 Jan 05 18:14	29°♂37'42		morning rise	2647 Aug 29 23:51	21°♂36'06	
	2643 Jan 06 05:45	0°♂			2647 Sep 12 03:17	0°♂	
	2643 Feb 13 11:34	0°♂			2647 Oct 29 20:23	0°♂	
					2647 Dec 17 21:49	0°♂	
conjunction	2643 Mar 12 14:56	21°♂27'36	0°-57'-29		2648 Feb 07 18:01	0°♂	
minimum elong	2643 Mar 12 17:40	21°♂33'01	0°57'29		2648 Apr 11 11:11	0°♂	
	2643 Mar 23 11:02	0°♂		desc. node	2648 Apr 12 22:49	0°♂30'23	
max. Earth dist.	2643 Apr 20 01:00	21°♂30'53	2.37832 AU	retrograde	2648 May 18 23:47	7°♂15'58	
	2643 May 01 01:57	0°♂		opposition	2648 Jun 21 11:35	0°♂49'42	-3°-28'-38
morning rise	2643 May 22 06:31	16°♂02'08		greatest brilliancy	2648 Jun 22 22:50	0°♂20'42	-2.3m
	2643 Jun 10 03:31	0°♂			2648 Jun 23 23:55	30°♂	
asc. node	2643 Jun 23 20:23	9°♂55'58		min. Earth dist.	2648 Jun 29 21:19	28°♂04'53	0.45914 AU
	2643 Jul 22 07:37	0°♂		direct	2648 Jul 28 01:24	22°♂58'10	
	2643 Sep 05 04:06	0°♂			2648 Aug 30 14:36	0°♂	
	2643 Oct 23 17:51	0°♂			2648 Oct 24 07:13	0°♂	
	2643 Dec 19 16:10	0°♂			2648 Dec 06 05:57	0°♂	
retrograde	2644 Feb 16 10:45	15°♂38'44			2649 Jan 16 02:40	0°♂	
opposition	2644 Mar 26 20:20	6°♂26'28	3°26'01	asc. node	2649 Feb 12 18:10	20°♂15'41	
greatest brilliancy	2644 Mar 27 08:22	6°♂14'37	-1.3m		2649 Feb 26 04:44	0°♂	
min. Earth dist.	2644 Mar 29 23:27	5°♂12'35	0.66289 AU		2649 Apr 09 12:44	0°♂	
	2644 Apr 13 15:28	30°♂			2649 May 23 12:47	0°♂	
direct	2644 May 07 06:35	26°♂24'22		evening set	2649 Jul 03 09:00	26°♂55'06	
	2644 Jun 01 19:25	0°♂			2649 Jul 08 02:51	0°♂	
desc. node	2644 Jul 09 01:15	14°♂14'31					
	2644 Aug 07 21:44	0°♂		conjunction	2649 Aug 20 08:40	27°♂47'37	1°08'37
	2644 Sep 24 20:13	0°♂		minimum elong	2649 Aug 20 08:44	27°♂47'45	1°08'37
	2644 Nov 06 09:14	0°♂			2649 Aug 23 19:39	0°♂	
	2644 Dec 16 02:05	0°♂		max. Earth dist.	2649 Aug 25 00:46	0°♂46'25	2.67026 AU
	2645 Jan 23 09:23	0°♂		morning rise	2649 Oct 04 10:58	26°♂29'40	
	2645 Mar 02 10:59	0°♂			2649 Oct 09 23:20	0°♂	
evening set	2645 Mar 16 22:59	11°♂18'41			2649 Nov 26 01:24	0°♂	
	2645 Apr 10 06:22	0°♂			2650 Jan 11 22:04	0°♂	
asc. node	2645 May 10 19:18	22°♂51'05			2650 Feb 27 20:10	0°♂	
	2645 May 20 13:51	0°♂		desc. node	2650 Feb 28 21:48	0°♂40'42	
					2650 Apr 16 19:27	0°♂	
conjunction	2645 May 21 00:06	0°♂18'38	0°06'38		2650 Jun 08 23:12	0°♂	
minimum elong	2645 May 20 23:37	0°♂17'44	0°06'38	retrograde	2650 Aug 04 23:19	16°♂44'03	
behind sun begin	2645 May 19 23:46	29°♂34'25		opposition	2650 Sep 04 01:53	11°♂43'01	-6°-33'-49

greatest brilliancy	2650 Sep 04 03:26	11° ✕ 42'00	-2.9m		2655 Nov 13 12:49	0° ✕	
min. Earth dist.	2650 Sep 03 17:20	11° ✕ 48'39	0.37201 AU				
direct	2650 Oct 03 16:22	6° ✕ 47'51		conjunction	2655 Dec 15 04:48	22° ✕ 35'13	0°-31'-21
	2650 Dec 10 19:12	0° Y		minimum elong	2655 Dec 15 03:25	22° ✕ 32'42	0°31'21
asc. node	2650 Dec 31 16:29	12° Y 05'57			2655 Dec 25 07:58	0° ☾	
	2651 Jan 29 12:38	0° ✕			2656 Feb 03 06:39	0° ≈	
	2651 Mar 17 04:13	0° II		morning rise	2656 Feb 09 00:27	4° ≈ 24'00	
	2651 May 02 18:59	0° ☾			2656 Mar 13 00:48	0° ✕	
	2651 Jun 18 23:43	0° Ω			2656 Apr 20 09:24	0° Y	
	2651 Aug 05 12:41	0° ☾			2656 May 29 05:58	0° ✕	
evening set	2651 Aug 11 09:39	3° ☾ 42'39			2656 Jul 08 14:17	0° II	
max. Earth dist.	2651 Sep 16 21:13	26° ☾ 52'03	2.66954 AU		2656 Aug 20 16:40	0° ☾	
	2651 Sep 21 18:52	0° Ω		asc. node	2656 Aug 22 13:26	1° ☾ 14'15	
					2656 Oct 08 03:19	0° Ω	
conjunction	2651 Sep 25 22:03	2° Ω 38'42	0°54'20	retrograde	2656 Dec 30 05:01	29° Ω 27'36	
minimum elong	2651 Sep 25 23:06	2° Ω 40'24	0°54'20	min. Earth dist.	2657 Feb 06 03:50	20° Ω 26'47	0.66168 AU
	2651 Nov 07 03:32	0° ☾		opposition	2657 Feb 08 10:04	19° Ω 32'22	4°34'31
morning rise	2651 Nov 09 06:01	1° ☾ 22'48		greatest brilliancy	2657 Feb 07 21:34	19° Ω 44'55	-1.3m
	2651 Dec 22 05:51	0° ✕		direct	2657 Mar 20 03:13	10° Ω 04'54	
desc. node	2652 Jan 16 20:47	17° ✕ 27'36			2657 May 28 02:36	0° ☾	
	2652 Feb 03 23:52	0° ☾			2657 Jul 23 07:25	0° Ω	
	2652 Mar 17 13:08	0° ≈		desc. node	2657 Sep 07 17:35	28° Ω 34'22	
	2652 Apr 28 06:25	0° ✕			2657 Sep 09 22:36	0° ☾	
	2652 Jun 09 01:50	0° Y			2657 Oct 24 12:25	0° ✕	
	2652 Jul 23 10:38	0° ✕			2657 Dec 05 03:35	0° ☾	
	2652 Sep 25 22:35	0° II		evening set	2657 Dec 12 23:10	5° ☾ 49'30	
retrograde	2652 Oct 10 10:21	1° II 28'27		max. Earth dist.	2658 Jan 10 01:45	27° ☾ 12'05	2.38511 AU
	2652 Oct 24 12:37	30° ☾			2658 Jan 13 16:44	0° ≈	
min. Earth dist.	2652 Nov 07 04:09	26° ✕ 10'11	0.45530 AU				
opposition	2652 Nov 15 10:31	23° ✕ 18'26	0°-7'-49	conjunction	2658 Feb 11 19:18	22° ≈ 43'46	-1°-4'-49
greatest brilliancy	2653 May 10 23:33	19° ☾ 49'40	-4.3m	minimum elong	2658 Feb 11 19:14	22° ≈ 43'38	1°04'50
asc. node	2652 Nov 17 16:22	22° ✕ 32'01			2658 Feb 21 00:46	0° ✕	
direct	2652 Dec 18 01:13	16° ✕ 40'41			2658 Mar 31 01:22	0° Y	
	2653 Feb 07 12:41	0° II		morning rise	2658 Apr 23 01:07	17° Y 57'31	
	2653 Apr 06 17:40	0° ☾			2658 May 08 16:06	0° ✕	
	2653 May 28 02:35	0° Ω			2658 Jun 17 16:54	0° II	
	2653 Jul 16 13:30	0° ☾		asc. node	2658 Jul 10 13:38	16° II 28'31	
	2653 Sep 02 13:32	0° Ω			2658 Jul 29 21:54	0° ☾	
evening set	2653 Sep 16 06:55	8° Ω 46'18			2658 Sep 13 03:22	0° Ω	
max. Earth dist.	2653 Oct 10 12:13	24° Ω 30'10	2.61521 AU		2658 Nov 02 06:44	0° ☾	
	2653 Oct 18 20:20	0° ☾		retrograde	2659 Jan 10 20:01	0° Ω	
					2659 Feb 02 14:47	2° Ω 54'10	
conjunction	2653 Nov 01 07:38	8° ☾ 58'22	0°18'26		2659 Feb 23 17:45	30° ☾	
minimum elong	2653 Nov 01 08:16	8° ☾ 59'26	0°18'26	opposition	2659 Mar 14 11:02	23° ☾ 25'28	3°59'38
	2653 Dec 02 04:29	0° ✕		greatest brilliancy	2659 Mar 14 17:36	23° ☾ 18'57	-1.2m
desc. node	2653 Dec 03 20:22	1° ✕ 09'02		min. Earth dist.	2659 Mar 16 01:52	22° ☾ 46'56	0.67545 AU
morning rise	2653 Dec 18 08:37	11° ✕ 17'09		direct	2659 Apr 24 16:24	13° ☾ 27'48	
	2654 Jan 13 14:35	0° ☾			2659 Jun 24 10:26	0° Ω	
	2654 Feb 23 09:31	0° ≈		desc. node	2659 Jul 26 16:20	16° Ω 28'16	
	2654 Apr 04 00:47	0° ✕			2659 Aug 18 21:24	0° ☾	
	2654 May 13 05:25	0° Y			2659 Oct 04 05:09	0° ✕	
	2654 Jun 22 00:06	0° ✕			2659 Nov 15 07:00	0° ☾	
	2654 Aug 02 23:25	0° II			2659 Dec 24 20:21	0° ≈	
	2654 Sep 20 00:54	0° ☾		evening set	2660 Feb 01 02:12	0° ✕	
asc. node	2654 Oct 05 14:57	8° ☾ 00'28			2660 Feb 17 10:56	12° ✕ 56'37	
retrograde	2654 Nov 24 17:34	21° ☾ 47'10			2660 Mar 10 02:03	0° Y	
min. Earth dist.	2654 Dec 28 00:43	14° ☾ 21'01	0.58300 AU		2660 Apr 17 18:38	0° ✕	
greatest brilliancy	2655 Jan 01 21:57	12° ☾ 25'39	-1.7m				
opposition	2655 Jan 03 01:02	11° ☾ 58'57	3°38'11	conjunction	2660 Apr 25 13:37	5° ✕ 55'17	0°-20'-51
direct	2655 Feb 08 21:05	3° ☾ 31'36		minimum elong	2660 Apr 25 15:25	5° ✕ 58'41	0°20'51
	2655 May 01 14:46	0° Ω		asc. node	2660 May 27 12:42	29° ✕ 41'56	
	2655 Jun 25 14:22	0° ☾			2660 May 27 22:36	0° II	
	2655 Aug 14 12:50	0° Ω		max. Earth dist.	2660 Jun 13 14:15	12° II 01'49	2.45741 AU
	2655 Sep 30 09:02	0° ☾		morning rise	2660 Jun 28 07:18	22° II 27'06	
desc. node	2655 Oct 21 19:15	14° ☾ 20'23			2660 Jul 09 03:07	0° ☾	
evening set	2655 Oct 25 21:29	17° ☾ 07'33			2660 Aug 22 16:11	0° Ω	
max. Earth dist.	2655 Nov 10 07:59	27° ☾ 45'58	2.51189 AU		2660 Oct 08 21:38	0° ☾	

	2660 Nov 29 02:15	0°♄		2666 Mar 26 14:26	0°♄	
	2661 Feb 01 09:22	0°♄		2666 May 10 20:40	0°♄	
retrograde	2661 Mar 10 20:46	7°♄04'47		2666 Jun 26 06:25	0°♄	
	2661 Apr 14 00:28	30°♄	evening set	2666 Jul 27 17:52	20°♄03'55	
opposition	2661 Apr 18 04:07	28°♄25'29	2°07'19	2666 Aug 12 09:21	0°♄	
greatest brilliancy	2661 Apr 18 18:36	28°♄11'32	-1.5m	2666 Sep 08 02:41	16°♄58'28	2.67644 AU
min. Earth dist.	2661 Apr 23 13:20	26°♄21'09	0.62338 AU			
direct	2661 May 29 09:06	18°♄28'04		conjunction	2666 Sep 11 20:12	19°♄20'50 1°02'43
desc. node	2661 Jun 12 15:29	19°♄41'51		minimum elong	2666 Sep 11 21:01	19°♄22'08 1°02'43
	2661 Jul 15 20:28	0°♄			2666 Sep 28 13:05	0°♄
	2661 Sep 09 03:35	0°♄	morning rise	2666 Oct 26 02:12	17°♄40'50	
	2661 Oct 23 09:44	0°♄		2666 Nov 14 02:45	0°♄	
	2661 Dec 02 17:40	0°♄		2666 Dec 29 17:52	0°♄	
	2662 Jan 10 08:53	0°♄	desc. node	2667 Feb 02 13:05	23°♄19'46	
	2662 Feb 17 16:56	0°♄		2667 Feb 12 09:25	0°♄	
	2662 Mar 28 19:18	0°♄		2667 Mar 28 05:46	0°♄	
asc. node	2662 Apr 14 11:03	12°♄27'41		2667 May 10 19:40	0°♄	
evening set	2662 Apr 26 08:58	21°♄14'14		2667 Jun 24 21:34	0°♄	
	2662 May 08 10:22	0°♄		2667 Aug 20 19:53	0°♄	
	2662 Jun 20 00:36	0°♄	retrograde	2667 Sep 18 16:19	5°♄29'29	
			min. Earth dist.	2667 Oct 15 04:14	0°♄53'36	0.40698 AU
conjunction	2662 Jun 23 11:16	2°♄21'49	0°40'54	2667 Oct 18 02:01	30°♄	
minimum elong	2662 Jun 23 09:30	2°♄18'46	0°40'53	greatest brilliancy	2667 Oct 21 09:19	28°♄58'09 -2.7m
max. Earth dist.	2662 Jul 21 09:57	21°♄13'59	2.58063 AU	opposition	2667 Oct 22 07:37	28°♄40'49 -2°-46'-45
	2662 Aug 03 15:52	0°♄		direct	2667 Nov 21 22:48	23°♄00'00
morning rise	2662 Aug 14 13:03	7°♄07'34		asc. node	2667 Dec 05 07:35	24°♄07'47
	2662 Sep 19 03:27	0°♄		2667 Dec 27 00:59	0°♄	
	2662 Nov 06 08:15	0°♄		2668 Feb 26 06:15	0°♄	
	2662 Dec 26 22:16	0°♄		2668 Apr 17 02:23	0°♄	
	2663 Feb 22 01:33	0°♄		2668 Jun 05 06:21	0°♄	
retrograde	2663 Apr 26 15:26	17°♄42'29		2668 Jul 23 18:40	0°♄	
desc. node	2663 Apr 30 13:47	17°♄36'41		evening set	2668 Sep 01 21:47	25°♄13'35
opposition	2663 May 31 21:03	10°♄27'53	-1°-28'-58		2668 Sep 09 09:46	0°♄
greatest brilliancy	2663 Jun 01 13:22	10°♄13'27	-2.0m	max. Earth dist.	2668 Sep 30 13:30	13°♄35'26 2.64293 AU
min. Earth dist.	2663 Jun 09 03:35	7°♄32'59	0.51215 AU			
direct	2663 Jul 09 14:02	1°♄35'31		conjunction	2668 Oct 17 08:45	24°♄31'59 0°34'34
	2663 Sep 23 19:08	0°♄		minimum elong	2668 Oct 17 09:45	24°♄33'37 0°34'34
	2663 Nov 07 11:57	0°♄			2668 Oct 25 16:13	0°♄
	2663 Dec 18 00:48	0°♄	morning rise	2668 Dec 01 19:43	24°♄54'52	
	2664 Jan 26 15:17	0°♄		2668 Dec 09 06:09	0°♄	
asc. node	2664 Mar 01 10:42	26°♄02'23		desc. node	2668 Dec 20 11:40	7°♄44'52
	2664 Mar 06 19:41	0°♄		2669 Jan 21 02:43	0°♄	
	2664 Apr 17 10:35	0°♄		2669 Mar 03 10:46	0°♄	
	2664 May 30 21:10	0°♄		2669 Apr 12 16:18	0°♄	
evening set	2664 Jun 16 11:23	11°♄08'12		2669 May 22 12:00	0°♄	
	2664 Jul 15 02:03	0°♄		2669 Jul 02 03:05	0°♄	
				2669 Aug 15 00:17	0°♄	
conjunction	2664 Aug 05 08:26	13°♄47'39	1°07'09	2669 Oct 12 23:56	0°♄	
minimum elong	2664 Aug 05 07:53	13°♄46'47	1°07'08	asc. node	2669 Oct 22 07:29	2°♄33'02
max. Earth dist.	2664 Aug 15 17:31	20°♄28'23	2.65571 AU	retrograde	2669 Nov 08 16:36	4°♄35'21
	2664 Aug 30 14:45	0°♄			2669 Dec 04 01:37	30°♄
morning rise	2664 Sep 20 14:23	13°♄21'20		min. Earth dist.	2669 Dec 09 20:00	27°♄56'12 0.53645 AU
	2664 Oct 16 21:21	0°♄		greatest brilliancy	2669 Dec 16 01:18	25°♄33'22 -1.9m
	2664 Dec 03 12:43	0°♄		opposition	2669 Dec 17 02:47	25°♄08'53 2°38'14
	2665 Jan 20 15:51	0°♄		direct	2670 Jan 21 10:33	17°♄17'06
	2665 Mar 11 07:57	0°♄			2670 Mar 13 19:04	0°♄
desc. node	2665 Mar 17 13:24	3°♄37'18			2670 May 12 19:58	0°♄
	2665 May 06 00:10	0°♄			2670 Jul 03 19:37	0°♄
retrograde	2665 Jul 03 06:38	16°♄20'20			2670 Aug 21 19:03	0°♄
opposition	2665 Aug 02 20:42	11°♄10'57	-6°-27'-48		2670 Oct 07 08:20	0°♄
greatest brilliancy	2665 Aug 04 06:32	10°♄47'16	-2.7m	evening set	2670 Oct 09 20:22	1°♄39'25
min. Earth dist.	2665 Aug 07 15:59	9°♄50'37	0.38930 AU	max. Earth dist.	2670 Oct 28 03:01	13°♄54'39 2.55748 AU
direct	2665 Sep 03 18:09	5°♄26'54		desc. node	2670 Nov 07 10:13	20°♄56'09
	2665 Nov 11 06:37	0°♄			2670 Nov 20 12:49	0°♄
	2665 Dec 28 07:49	0°♄				
asc. node	2666 Jan 17 09:23	13°♄35'54		conjunction	2670 Nov 26 21:10	4°♄26'24 0°-11'-24
	2666 Feb 10 09:21	0°♄		minimum elong	2670 Nov 26 20:41	4°♄25'34 0°11'25

behind sun begin	2670 Nov 26 05:39	3°♂59'12		opposition	2676 Apr 03 18:24	14°♂33'05	3°00'49
behind sun end	2670 Nov 27 11:44	4°♂51'58		greatest brilliancy	2676 Apr 04 08:17	14°♂19'31	-1.3m
	2671 Jan 01 12:57	0°♂		min. Earth dist.	2676 Apr 07 16:58	13°♂00'41	0.65140 AU
morning rise	2671 Jan 17 05:16	11°♂33'27		direct	2676 May 15 04:31	4°♂30'56	
	2671 Feb 10 18:26	0°♂		desc. node	2676 Jun 29 06:33	14°♂44'42	
	2671 Mar 21 19:36	0°♂			2676 Jul 31 09:48	0°♂	
	2671 Apr 29 10:17	0°♂			2676 Sep 19 01:13	0°♂	
	2671 Jun 07 12:25	0°♂			2676 Nov 01 02:22	0°♂	
	2671 Jul 18 05:11	0°♂			2676 Dec 10 23:56	0°♂	
	2671 Aug 31 05:42	0°♂			2677 Jan 18 09:47	0°♂	
asc. node	2671 Sep 09 07:22	5°♂44'12			2677 Feb 25 13:13	0°♂	
	2671 Oct 22 15:40	0°♂		evening set	2677 Apr 01 07:01	26°♂51'16	
retrograde	2671 Dec 17 13:18	15°♂48'46			2677 Apr 05 10:17	0°♂	
min. Earth dist.	2672 Jan 22 19:36	7°♂21'31	0.63807 AU	asc. node	2677 May 01 04:05	19°♂16'43	
opposition	2672 Jan 26 14:19	5°♂50'40	4°26'01		2677 May 15 19:32	0°♂	
greatest brilliancy	2672 Jan 25 18:25	6°♂10'37	-1.4m				
	2672 Feb 11 21:41	30°♂		conjunction	2677 Jun 02 20:59	12°♂58'25	0°20'38
direct	2672 Mar 05 08:30	26°♂42'43		minimum elong	2677 Jun 02 19:41	12°♂56'06	0°20'38
	2672 Mar 29 22:26	0°♂			2677 Jun 27 04:19	0°♂	
	2672 Jun 08 23:05	0°♂		max. Earth dist.	2677 Jul 09 04:53	8°♂14'46	2.53717 AU
	2672 Jul 31 16:22	0°♂		morning rise	2677 Jul 28 18:11	21°♂25'41	
	2672 Sep 17 09:55	0°♂			2677 Aug 10 16:43	0°♂	
desc. node	2672 Sep 24 09:03	4°♂34'39			2677 Sep 26 07:45	0°♂	
	2672 Oct 31 18:10	0°♂			2677 Nov 14 06:43	0°♂	
evening set	2672 Nov 22 04:07	15°♂12'35			2678 Jan 06 09:25	0°♂	
max. Earth dist.	2672 Dec 08 01:29	26°♂47'04	2.43254 AU		2678 Mar 26 05:01	0°♂	
	2672 Dec 12 10:02	0°♂		retrograde	2678 Apr 06 16:06	0°♂45'45	
					2678 Apr 17 15:15	30°♂	
conjunction	2673 Jan 17 01:15	26°♂53'48	0°-57'-58	opposition	2678 May 13 07:30	22°♂52'12	0°10'23
minimum elong	2673 Jan 16 23:23	26°♂50'14	0°57'58	greatest brilliancy	2678 Mar 19 11:37	28°♂54'36	-2.2m
	2673 Jan 21 02:04	0°♂		desc. node	2678 May 17 06:09	21°♂24'20	
	2673 Feb 28 13:14	0°♂		min. Earth dist.	2678 May 20 16:44	20°♂08'33	0.56139 AU
morning rise	2673 Mar 23 07:39	17°♂55'53		direct	2678 Jun 22 09:49	13°♂22'09	
	2673 Apr 07 16:03	0°♂			2678 Aug 18 02:45	0°♂	
	2673 May 16 07:50	0°♂			2678 Oct 07 00:43	0°♂	
	2673 Jun 25 09:43	0°♂			2678 Nov 18 00:12	0°♂	
asc. node	2673 Jul 27 05:38	22°♂43'03			2678 Dec 27 10:40	0°♂	
	2673 Aug 06 18:52	0°♂			2679 Feb 04 08:29	0°♂	
	2673 Sep 21 16:59	0°♂			2679 Mar 15 23:14	0°♂	
	2673 Nov 13 20:06	0°♂		asc. node	2679 Mar 19 02:12	2°♂19'24	
retrograde	2674 Jan 20 04:16	20°♂14'07			2679 Apr 26 02:13	0°♂	
opposition	2674 Mar 01 06:58	10°♂32'22	4°22'03	evening set	2679 May 29 23:34	23°♂44'36	
greatest brilliancy	2674 Mar 01 06:32	10°♂32'47	-1.2m		2679 Jun 08 02:46	0°♂	
min. Earth dist.	2674 Mar 01 09:19	10°♂30'01	0.67788 AU				
direct	2674 Apr 11 02:01	0°♂43'35		conjunction	2679 Jul 21 10:30	28°♂57'32	1°01'06
	2674 Jul 07 04:34	0°♂		minimum elong	2679 Jul 21 09:19	28°♂55'35	1°01'05
desc. node	2674 Aug 12 07:34	20°♂31'37			2679 Jul 23 00:35	0°♂	
	2674 Aug 27 17:00	0°♂		max. Earth dist.	2679 Aug 07 01:59	9°♂49'27	2.63269 AU
	2674 Oct 12 02:47	0°♂		morning rise	2679 Sep 07 09:30	29°♂57'50	
	2674 Nov 22 22:42	0°♂			2679 Sep 07 10:52	0°♂	
	2675 Jan 01 10:58	0°♂			2679 Oct 24 22:56	0°♂	
evening set	2675 Jan 20 11:03	14°♂49'57			2679 Dec 12 09:25	0°♂	
	2675 Feb 08 16:49	0°♂			2680 Jan 31 12:08	0°♂	
	2675 Mar 18 15:59	0°♂			2680 Mar 26 22:23	0°♂	
				desc. node	2680 Apr 03 04:41	3°♂25'27	
conjunction	2675 Mar 29 04:29	8°♂15'12	0°-46'-48	retrograde	2680 Jun 03 01:07	20°♂18'12	
minimum elong	2675 Mar 29 07:51	8°♂21'46	0°46'47	opposition	2680 Jul 05 08:56	14°♂21'23	-4°-40'-54
	2675 Apr 26 06:39	0°♂		greatest brilliancy	2680 Jul 07 02:57	13°♂48'39	-2.5m
max. Earth dist.	2675 May 18 21:33	17°♂06'29	2.40342 AU	min. Earth dist.	2680 Jul 13 04:59	11°♂55'37	0.43104 AU
	2675 Jun 05 07:59	0°♂		direct	2680 Aug 09 11:17	7°♂12'52	
morning rise	2675 Jun 06 01:08	0°♂31'21			2680 Oct 13 10:28	0°♂	
asc. node	2675 Jun 14 04:39	6°♂26'55			2680 Nov 28 12:12	0°♂	
	2675 Jul 17 10:45	0°♂			2681 Jan 09 14:11	0°♂	
	2675 Aug 31 02:34	0°♂		asc. node	2681 Feb 03 01:11	17°♂36'38	
	2675 Oct 18 00:16	0°♂			2681 Feb 20 09:07	0°♂	
	2675 Dec 10 23:17	0°♂			2681 Apr 04 04:50	0°♂	
retrograde	2676 Feb 24 17:03	23°♂34'48			2681 May 18 13:05	0°♂	

	2681 Jul 03 08:47	0°♈		morning rise	2685 Dec 28 12:22	21°♏51'07	
evening set	2681 Jul 12 12:29	5°♈54'16			2686 Jan 08 19:36	0°♏	
	2681 Aug 19 04:21	0°♏			2686 Feb 18 09:42	0°♏	
conjunction	2681 Aug 28 16:22	6°♏02'55	1°07'33		2686 Mar 29 19:33	0°♏	
minimum elong	2681 Aug 28 16:46	6°♏03'32	1°07'33		2686 May 07 18:15	0°♏	
max. Earth dist.	2681 Aug 30 07:04	7°♏04'29	2.67491 AU		2686 Jun 16 04:54	0°♏	
	2681 Oct 05 07:33	0°♏			2686 Jul 27 12:36	0°♏	
morning rise	2681 Oct 12 07:58	4°♏28'29		asc. node	2686 Sep 11 09:17	0°♏	
	2681 Nov 21 04:28	0°♏			2686 Sep 25 22:45	8°♏22'06	
	2682 Jan 06 12:47	0°♏		retrograde	2686 Nov 19 17:27	0°♏	
desc. node	2682 Feb 19 03:44	28°♏29'14			2686 Dec 03 07:08	1°♏12'36	
	2682 Feb 21 11:12	0°♏		min. Earth dist.	2686 Dec 16 07:35	30°♏	
	2682 Apr 08 11:05	0°♏		opposition	2687 Jan 06 16:52	23°♏23'22	0.60513 AU
	2682 May 26 01:40	0°♏		greatest brilliancy	2687 Jan 11 23:01	21°♏18'07	4°01'40
	2682 Jul 24 18:40	0°♏		direct	2687 Jan 10 21:25	21°♏43'34	-1.6m
retrograde	2682 Aug 22 07:20	5°♏06'25			2687 Feb 18 13:17	12°♏34'37	
min. Earth dist.	2682 Sep 19 00:38	0°♏34'25	0.37641 AU		2687 Apr 22 15:49	0°♏	
	2682 Sep 21 02:45	30°♏			2687 Jun 19 17:12	0°♏	
opposition	2682 Sep 22 08:12	29°♏39'42	-5°-33'-50		2687 Aug 09 11:34	0°♏	
greatest brilliancy	2682 Sep 21 16:48	29°♏50'18	-2.9m	desc. node	2687 Sep 25 14:59	0°♏	
direct	2682 Oct 21 21:24	24°♏41'24		evening set	2687 Oct 12 00:09	10°♏53'54	
	2682 Nov 20 11:25	0°♏			2687 Nov 04 16:20	27°♏05'22	
asc. node	2682 Dec 22 00:58	13°♏41'58		max. Earth dist.	2687 Nov 08 20:34	0°♏	
	2683 Jan 20 11:07	0°♏			2687 Nov 19 08:47	7°♏23'45	2.48431 AU
	2683 Mar 10 12:54	0°♏			2687 Dec 20 15:02	0°♏	
	2683 Apr 27 05:11	0°♏		conjunction	2687 Dec 26 15:50	4°♏27'46	0°-42'-19
	2683 Jun 13 23:18	0°♏		minimum elong	2687 Dec 26 14:01	4°♏24'24	0°42'19
	2683 Jul 31 19:11	0°♏			2688 Jan 29 11:38	0°♏	
evening set	2683 Aug 19 15:32	11°♏52'42		morning rise	2688 Feb 23 14:10	19°♏24'50	
	2683 Sep 17 04:13	0°♏			2688 Mar 08 03:26	0°♏	
max. Earth dist.	2683 Sep 22 04:53	3°♏13'03	2.66237 AU		2688 Apr 15 09:50	0°♏	
conjunction	2683 Oct 04 00:21	10°♏48'28	0°47'56		2688 May 24 03:57	0°♏	
minimum elong	2683 Oct 04 01:27	10°♏50'15	0°47'56	asc. node	2688 Jul 03 08:31	0°♏	
	2683 Nov 02 12:07	0°♏			2688 Aug 12 22:32	28°♏33'36	
morning rise	2683 Nov 17 13:59	9°♏57'47			2688 Aug 15 01:38	0°♏	
	2683 Dec 17 09:47	0°♏			2688 Oct 01 05:04	0°♏	
desc. node	2684 Jan 07 02:57	14°♏11'28		retrograde	2688 Nov 30 17:15	0°♏	
	2684 Jan 29 19:34	0°♏			2689 Jan 06 20:41	7°♏25'31	
	2684 Mar 11 20:49	0°♏		min. Earth dist.	2689 Feb 09 23:14	30°♏	
	2684 Apr 21 22:37	0°♏		opposition	2689 Feb 14 15:55	28°♏08'23	0.67025 AU
	2684 Jun 01 19:13	0°♏		greatest brilliancy	2689 Feb 16 02:20	27°♏33'53	4°33'24
	2684 Jul 14 03:46	0°♏		direct	2689 Feb 15 18:08	27°♏42'06	-1.3m
	2684 Sep 01 12:35	0°♏			2689 Mar 28 06:32	17°♏57'44	
retrograde	2684 Oct 21 18:10	14°♏43'39			2689 May 18 05:16	0°♏	
asc. node	2684 Nov 07 23:59	12°♏31'17		desc. node	2689 Jul 17 08:19	0°♏	
min. Earth dist.	2684 Nov 19 16:13	8°♏55'56	0.48469 AU		2689 Aug 28 23:36	25°♏38'27	
opposition	2684 Nov 27 19:17	5°♏58'55	1°04'33		2689 Sep 04 20:02	0°♏	
greatest brilliancy	2684 Nov 27 06:15	6°♏10'48	-2.2m		2689 Oct 19 16:25	0°♏	
	2684 Dec 18 12:21	30°♏		evening set	2689 Nov 30 09:25	0°♏	
direct	2684 Dec 31 10:16	28°♏51'52			2689 Dec 26 00:45	19°♏18'40	
	2685 Jan 13 21:57	0°♏			2690 Jan 08 22:11	0°♏	
	2685 Mar 29 23:00	0°♏		max. Earth dist.	2690 Feb 16 05:16	0°♏	
	2685 May 22 08:04	0°♏			2690 Feb 25 20:36	7°♏37'02	2.36996 AU
	2685 Jul 11 12:38	0°♏		conjunction	2690 Feb 27 19:17	9°♏09'20	-1°-2'-35
	2685 Aug 28 20:11	0°♏		minimum elong	2690 Feb 27 20:55	9°♏12'34	1°02'35
evening set	2685 Sep 24 16:43	17°♏12'27			2690 Mar 26 05:03	0°♏	
	2685 Oct 14 05:28	0°♏			2690 May 03 19:08	0°♏	
max. Earth dist.	2685 Oct 16 16:02	1°♏36'58	2.59679 AU	morning rise	2690 May 09 22:26	4°♏41'12	
conjunction	2685 Nov 10 06:14	18°♏08'08	0°07'59	asc. node	2690 Jun 12 19:16	0°♏	
minimum elong	2685 Nov 10 06:31	18°♏08'37	0°08'00		2690 Jun 30 20:45	13°♏04'40	
behind sun begin	2685 Nov 09 12:59	17°♏38'50			2690 Jul 24 22:08	0°♏	
behind sun end	2685 Nov 11 00:02	18°♏38'26			2690 Sep 07 20:07	0°♏	
desc. node	2685 Nov 24 01:31	27°♏36'09			2690 Oct 26 20:50	0°♏	
	2685 Nov 27 12:40	0°♏		retrograde	2690 Dec 25 17:16	0°♏	
					2691 Feb 10 11:28	10°♏38'12	

opposition	2691 Mar 22 02:17	1°♄18'00	3°41'13			2696 Jan 20 19:19	0°♑		
greatest brilliancy	2691 Mar 22 12:01	1°♄08'22	-1.2m	asc. node		2696 Feb 20 18:34	22°♑57'07		
min. Earth dist.	2691 Mar 24 12:48	0°♄20'12	0.66982 AU			2696 Mar 01 09:45	0°♄		
	2691 Mar 25 09:20	30°♄				2696 Apr 12 08:23	0°♂		
direct	2691 May 02 11:08	21°♄17'27				2696 May 26 00:50	0°♄		
	2691 Jun 13 03:35	0°♄		evening set		2696 Jun 26 06:38	20°♄45'55		
desc. node	2691 Jul 16 22:37	15°♄13'03				2696 Jul 10 09:35	0°♄		
	2691 Aug 12 15:25	0°♄							
	2691 Sep 28 21:22	0°♄		conjunction		2696 Aug 14 00:47	22°♄21'16	1°08'31	
	2691 Nov 10 06:42	0°♄		minimum elong		2696 Aug 14 00:37	22°♄21'00	1°08'30	
	2691 Dec 19 22:35	0°♄		max. Earth dist.		2696 Aug 21 03:58	26°♄55'13	2.66478 AU	
	2692 Jan 27 05:24	0°♄				2696 Aug 25 23:39	0°♄		
greatest brilliancy	2692 Jan 27 18:52	0°♄26'36	1.2m	morning rise		2696 Sep 28 13:53	21°♄22'25		
evening set	2692 Mar 04 14:43	29°♄30'23				2696 Oct 12 04:14	0°♄		
	2692 Mar 05 05:48	0°♑				2696 Nov 28 11:41	0°♄		
	2692 Apr 12 22:57	0°♄				2697 Jan 14 20:27	0°♄		
						2697 Mar 03 19:02	0°♄		
conjunction	2692 May 10 08:54	20°♄36'30	0°-4'-54	desc. node		2697 Mar 07 18:59	2°♄27'49		
minimum elong	2692 May 10 09:17	20°♄37'12	0°04'55			2697 Apr 23 01:44	0°♄		
behind sun begin	2692 May 09 07:25	19°♄49'18				2697 Jun 27 16:09	0°♄		
behind sun end	2692 May 11 11:08	21°♄25'02		retrograde		2697 Jul 21 14:34	3°♄24'49		
asc. node	2692 May 17 19:23	26°♄05'28				2697 Aug 14 18:31	30°♄		
	2692 May 23 03:37	0°♂		opposition		2697 Aug 20 15:38	28°♄28'05	-6°-48'-44	
max. Earth dist.	2692 Jun 24 09:48	23°♂04'11	2.48720 AU	greatest brilliancy		2697 Aug 21 09:22	28°♄16'19	-2.9m	
	2692 Jul 04 08:28	0°♄		min. Earth dist.		2697 Aug 22 19:14	27°♄53'52	0.37587 AU	
morning rise	2692 Jul 10 02:20	3°♄57'58		direct		2697 Sep 19 22:53	23°♄19'12		
	2692 Aug 17 19:49	0°♄				2697 Oct 22 21:56	0°♄		
	2692 Oct 03 17:49	0°♄				2697 Dec 18 20:24	0°♑		
	2692 Nov 22 20:57	0°♄		asc. node		2698 Jan 07 16:37	12°♑34'30		
	2693 Jan 19 20:16	0°♄				2698 Feb 03 07:49	0°♄		
retrograde	2693 Mar 20 02:35	15°♄38'05				2698 Mar 20 16:17	0°♂		
opposition	2693 Apr 26 21:22	7°♄13'15	1°29'15			2698 May 05 14:18	0°♄		
greatest brilliancy	2693 Apr 27 09:36	7°♄01'36	-1.6m			2698 Jun 21 09:22	0°♄		
min. Earth dist.	2693 May 03 00:35	4°♄53'16	0.60383 AU	evening set		2698 Aug 05 04:36	28°♄23'59		
	2693 May 17 22:56	30°♄				2698 Aug 07 17:16	0°♄		
desc. node	2693 Jun 02 21:04	27°♄28'33		max. Earth dist.		2698 Sep 13 06:58	23°♄12'26	2.67363 AU	
direct	2693 Jun 06 19:36	27°♄22'25							
	2693 Jun 27 20:12	0°♄		conjunction		2698 Sep 19 21:55	27°♄25'49	0°58'14	
	2693 Sep 01 22:32	0°♄		minimum elong		2698 Sep 19 22:53	27°♄27'23	0°58'13	
	2693 Oct 17 12:18	0°♄				2698 Sep 23 22:26	0°♄		
	2693 Nov 27 07:09	0°♄		morning rise		2698 Nov 03 03:32	25°♄55'28		
	2694 Jan 05 03:48	0°♄				2698 Nov 09 09:36	0°♄		
	2694 Feb 12 15:36	0°♑				2698 Dec 24 17:51	0°♄		
	2694 Mar 23 20:58	0°♄		desc. node		2699 Jan 23 18:00	20°♄18'15		
asc. node	2694 Apr 04 19:32	8°♄55'40				2699 Feb 06 21:27	0°♄		
	2694 May 03 14:47	0°♂				2699 Mar 21 23:33	0°♄		
evening set	2694 May 09 06:06	4°♂02'42				2699 May 03 09:53	0°♄		
	2694 Jun 15 07:15	0°♄				2699 Jun 15 06:43	0°♑		
						2699 Aug 01 07:38	0°♄		
conjunction	2694 Jul 04 03:23	12°♄48'23	0°49'54	retrograde		2699 Oct 02 01:01	21°♄08'12		
minimum elong	2694 Jul 04 01:42	12°♄45'33	0°49'54	min. Earth dist.		2699 Oct 29 00:34	16°♄11'16	0.43237 AU	
max. Earth dist.	2694 Jul 27 22:10	28°♄38'49	2.60123 AU	greatest brilliancy		2699 Nov 05 12:33	13°♄42'30	-2.5m	
	2694 Jul 29 23:29	0°♄		opposition		2699 Nov 06 00:50	13°♄32'16	-1°-11'-50	
morning rise	2694 Aug 23 12:39	15°♄59'39		asc. node		2699 Nov 25 16:21	8°♄18'40		
	2694 Sep 14 09:18	0°♄		direct		2699 Dec 07 18:45	7°♄19'53		
	2694 Nov 01 06:16	0°♄				2700 Feb 16 11:41	0°♂		
	2694 Dec 20 20:46	0°♄				2700 Apr 11 14:30	0°♄		
	2695 Feb 12 09:39	0°♄				2700 May 31 21:20	0°♄		
desc. node	2695 Apr 20 19:49	26°♄53'20				2700 Jul 19 21:42	0°♄		
retrograde	2695 May 09 07:46	28°♄50'31				2700 Sep 05 18:13	0°♄		
opposition	2695 Jun 12 15:34	22°♄01'38	-2°-35'-4	evening set		2700 Sep 11 02:25	3°♄24'21		
greatest brilliancy	2695 Jun 13 19:16	21°♄38'00	-2.2m	max. Earth dist.		2700 Oct 07 04:19	20°♄13'52	2.62857 AU	
min. Earth dist.	2695 Jun 21 03:54	19°♄08'25	0.48293 AU			2700 Oct 22 01:39	0°♄		
direct	2695 Jul 20 07:14	13°♄39'53							
	2695 Sep 12 11:09	0°♄		conjunction		2700 Oct 26 19:38	3°♄08'36	0°25'30	
	2695 Oct 30 22:25	0°♄		minimum elong		2700 Oct 26 20:27	3°♄09'57	0°25'30	
	2695 Dec 11 14:16	0°♄				2700 Dec 05 13:10	0°♄		

desc. node	2700 Dec 11 17:26	4°♏16'11		min. Earth dist.	2706 Mar 10 18:29	18°♍01'36	0.67787 AU
morning rise	2700 Dec 12 01:27	4°♏30'04		direct	2706 Apr 19 22:12	8°♍29'31	
	2701 Jan 17 04:39	0°♏			2706 Jun 30 10:29	0°♎	
	2701 Feb 27 05:44	0°♎		desc. node	2706 Aug 03 13:31	18°♎21'23	
	2701 Apr 08 03:14	0°♏			2706 Aug 23 01:14	0°♍	
	2701 May 17 13:54	0°♍			2706 Oct 08 00:33	0°♏	
	2701 Jun 26 15:19	0°♎			2706 Nov 19 01:07	0°♏	
	2701 Aug 08 04:26	0°♍			2706 Dec 28 14:47	0°♎	
	2701 Sep 27 15:42	0°♎			2707 Feb 04 20:55	0°♏	
asc. node	2701 Oct 13 15:36	7°♎08'49		evening set	2707 Feb 05 23:50	0°♏53'12	
retrograde	2701 Nov 19 00:04	15°♎05'46			2707 Mar 14 20:19	0°♍	
min. Earth dist.	2701 Dec 21 08:42	8°♎00'12	0.56312 AU				
opposition	2701 Dec 27 23:43	5°♎25'18	3°16'31	conjunction	2707 Apr 15 11:07	24°♍37'21	0°-32'-43
greatest brilliancy	2701 Dec 26 20:09	5°♎52'12	-1.8m	minimum elong	2707 Apr 15 13:53	24°♍42'41	0°32'42
	2702 Jan 12 19:31	30°♎♍			2707 Apr 22 11:20	0°♎	
direct	2702 Feb 02 04:17	27°♍12'57			2707 Jun 01 12:53	0°♍	
	2702 Feb 24 07:17	0°♎		asc. node	2707 Jun 05 13:02	2°♍55'26	
	2702 May 06 19:35	0°♎		max. Earth dist.	2707 Jun 05 19:15	3°♍06'44	2.43286 AU
	2702 Jun 29 09:13	0°♍		morning rise	2707 Jun 20 15:19	13°♍48'43	
	2702 Aug 17 22:09	0°♎			2707 Jul 13 15:08	0°♎	
	2702 Oct 03 16:28	0°♍			2707 Aug 27 03:22	0°♎	
evening set	2702 Oct 19 20:03	10°♍45'56			2707 Oct 13 13:05	0°♍	
desc. node	2702 Oct 29 16:16	17°♍25'54			2707 Dec 04 14:22	0°♎	
max. Earth dist.	2702 Nov 05 09:43	22°♍02'10	2.53307 AU		2708 Feb 16 23:01	0°♍	
	2702 Nov 16 21:44	0°♏		retrograde	2708 Mar 05 05:23	1°♍40'48	
					2708 Mar 21 10:20	30°♎♎	
conjunction	2702 Dec 08 00:14	14°♏54'33	0°-22'-54	opposition	2708 Apr 12 21:31	22°♎50'41	2°31'10
minimum elong	2702 Dec 07 23:14	14°♏52'46	0°22'54	greatest brilliancy	2708 Apr 13 12:05	22°♎36'33	-1.4m
	2702 Dec 28 20:11	0°♏		min. Earth dist.	2708 Apr 17 15:05	21°♎00'36	0.63719 AU
morning rise	2703 Jan 30 15:28	24°♏27'31		direct	2708 May 24 05:51	12°♎50'17	
	2703 Feb 06 22:32	0°♎		desc. node	2708 Jun 20 12:30	17°♎00'26	
	2703 Mar 17 19:57	0°♏			2708 Jul 23 12:19	0°♍	
	2703 Apr 25 06:59	0°♍			2708 Sep 13 22:19	0°♏	
	2703 Jun 03 05:00	0°♎			2708 Oct 27 16:05	0°♏	
	2703 Jul 13 15:07	0°♍			2708 Dec 06 19:55	0°♎	
	2703 Aug 25 23:24	0°♎			2709 Jan 14 08:42	0°♏	
asc. node	2703 Aug 31 13:42	3°♎39'36			2709 Feb 21 14:15	0°♍	
	2703 Oct 14 12:24	0°♎			2709 Apr 01 13:17	0°♎	
retrograde	2703 Dec 26 10:25	24°♎11'58		evening set	2709 Apr 16 19:42	11°♎28'30	
min. Earth dist.	2704 Feb 01 15:40	15°♎25'54	0.65246 AU	asc. node	2709 Apr 22 11:23	15°♎40'34	
opposition	2704 Feb 04 14:45	14°♎14'39	4°32'48		2709 May 12 00:27	0°♍	
greatest brilliancy	2704 Feb 03 22:46	14°♎30'41	-1.3m				
direct	2704 Mar 14 22:50	4°♎55'23		conjunction	2709 Jun 15 21:09	24°♍45'08	0°33'00
	2704 Jun 02 14:13	0°♍		minimum elong	2709 Jun 15 19:26	24°♍42'09	0°32'59
	2704 Jul 27 04:35	0°♎			2709 Jun 23 10:57	0°♎	
	2704 Sep 13 11:34	0°♍		max. Earth dist.	2709 Jul 17 12:56	16°♎23'52	2.56212 AU
desc. node	2704 Sep 15 14:51	1°♍23'22			2709 Aug 06 23:29	0°♎	
	2704 Oct 28 00:20	0°♏		morning rise	2709 Aug 08 12:38	1°♎01'08	
evening set	2704 Dec 04 14:08	26°♏57'17			2709 Sep 22 11:10	0°♍	
	2704 Dec 08 17:10	0°♏			2709 Nov 09 21:52	0°♎	
max. Earth dist.	2704 Dec 24 07:01	11°♏38'20	2.40506 AU		2709 Dec 31 08:16	0°♍	
	2705 Jan 17 08:27	0°♎			2710 Mar 02 15:06	0°♏	
				retrograde	2710 Apr 18 14:50	10°♏35'32	
conjunction	2705 Feb 01 02:33	11°♎26'55	-1°-3'-20	desc. node	2710 May 08 10:54	8°♏07'24	
minimum elong	2705 Feb 01 01:27	11°♎24'45	1°03'20	opposition	2710 May 24 13:15	3°♏02'20	0°-44'-12
	2705 Feb 24 18:11	0°♏		greatest brilliancy	2710 May 24 21:15	2°♏55'06	-1.9m
	2705 Apr 03 19:36	0°♍			2710 Jun 01 23:53	30°♎♍	
morning rise	2705 Apr 10 13:08	5°♍16'52		min. Earth dist.	2710 Jun 01 12:03	0°♏10'22	0.53495 AU
	2705 May 12 09:58	0°♎		direct	2710 Jul 02 23:21	23°♍50'47	
	2705 Jun 21 09:48	0°♍			2710 Aug 04 01:32	0°♏	
asc. node	2705 Jul 18 13:28	19°♍31'06			2710 Sep 30 09:41	0°♏	
	2705 Aug 02 14:40	0°♎			2710 Nov 12 17:16	0°♎	
	2705 Sep 16 23:56	0°♎			2710 Dec 22 16:54	0°♏	
	2705 Nov 07 00:04	0°♍			2711 Jan 30 22:47	0°♍	
retrograde	2706 Jan 28 20:29	27°♍58'47		asc. node	2711 Mar 10 10:37	28°♍58'43	
opposition	2706 Mar 09 20:20	18°♍23'39	4°10'10		2711 Mar 11 19:41	0°♎	
greatest brilliancy	2706 Mar 09 23:52	18°♍20'08	-1.2m		2711 Apr 22 03:36	0°♍	

	2711 Jun 04 08:18	0°☿				2716 Apr 17 00:40	0°♄		
evening set	2711 Jun 10 17:25	4°☿19'23				2716 May 27 05:46	0°♅		
	2711 Jul 19 08:43	0°♁				2716 Jul 07 09:59	0°♆		
						2716 Aug 21 17:50	0°♁		
conjunction	2711 Jul 31 15:56	8°♁01'11	1°05'11	asc. node		2716 Oct 30 07:21	26°♁47'42		
minimum elong	2711 Jul 31 15:07	7°♁59'52	1°05'11	retrograde		2716 Nov 02 05:30	26°♁51'28		
max. Earth dist.	2711 Aug 13 17:49	16°♁29'03	2.64642 AU	min. Earth dist.		2716 Dec 02 09:19	20°♁35'08	0.51365 AU	
	2711 Sep 03 19:28	0°♁		greatest brilliancy		2716 Dec 09 05:07	18°♁01'26	-2.0m	
morning rise	2711 Sep 16 14:24	8°♁08'51		opposition		2716 Dec 10 03:15	17°♁40'36	2°03'25	
	2711 Oct 21 03:48	0°♁		direct		2717 Jan 13 16:51	10°♁07'45		
	2711 Dec 08 02:21	0°♁				2717 Mar 21 15:51	0°☿		
	2712 Jan 25 23:09	0°♁				2717 May 17 04:54	0°♁		
	2712 Mar 17 11:45	0°♁				2717 Jul 07 08:50	0°♁		
desc. node	2712 Mar 25 10:09	4°♁19'37				2717 Aug 25 01:55	0°♁		
	2712 May 21 23:54	0°♁		evening set		2717 Oct 04 06:14	25°♁49'35		
retrograde	2712 Jun 20 13:28	4°♁50'10				2717 Oct 10 14:22	0°♁		
	2712 Jul 19 15:20	30°♁♁		max. Earth dist.		2717 Oct 24 02:01	8°♁58'36	2.57601 AU	
opposition	2712 Jul 21 19:59	29°♁21'43	-5°-48'-2	desc. node		2717 Nov 15 07:15	24°♁04'05		
greatest brilliancy	2712 Jul 23 13:12	28°♁51'25	-2.6m						
min. Earth dist.	2712 Jul 28 07:05	27°♁28'17	0.40581 AU	conjunction		2717 Nov 20 12:57	27°♁40'54	0°-3'-5	
direct	2712 Aug 24 04:09	23°♁00'48		minimum elong		2717 Nov 20 12:49	27°♁40'40	0°03'05	
	2712 Sep 26 07:59	0°♁		behind sun begin		2717 Nov 19 16:45	27°♁05'59		
	2712 Nov 20 05:29	0°♄		behind sun end		2717 Nov 21 08:53	28°♁15'23		
	2713 Jan 03 09:57	0°♅				2717 Nov 23 21:12	0°♁		
asc. node	2713 Jan 25 09:28	15°♅23'20				2718 Jan 05 01:17	0°♁		
	2713 Feb 15 06:26	0°♄		morning rise		2718 Jan 09 08:14	3°♁07'42		
	2713 Mar 30 17:47	0°♁				2718 Feb 14 11:23	0°♁		
	2713 May 14 12:28	0°☿				2718 Mar 25 16:38	0°♄		
	2713 Jun 29 14:40	0°♁				2718 May 03 10:41	0°♅		
evening set	2713 Jul 22 07:32	14°♁32'50				2718 Jun 11 15:35	0°♄		
	2713 Aug 15 13:43	0°♁				2718 Jul 22 12:17	0°♁		
max. Earth dist.	2713 Sep 05 11:49	13°♁18'02	2.67686 AU			2718 Sep 05 01:21	0°☿		
				asc. node		2718 Sep 17 07:32	7°☿31'53		
conjunction	2713 Sep 06 19:46	14°♁08'49	1°05'10			2718 Oct 30 14:02	0°♁		
minimum elong	2713 Sep 06 20:25	14°♁09'52	1°05'09	retrograde		2718 Dec 12 13:08	10°♁10'44		
	2713 Oct 01 17:10	0°♁		min. Earth dist.		2719 Jan 17 00:01	2°♁00'19	0.62445 AU	
morning rise	2713 Oct 21 04:39	12°♁27'39		opposition		2719 Jan 21 11:15	0°♁13'20	4°18'14	
	2713 Nov 17 10:05	0°♁		greatest brilliancy		2719 Jan 20 12:24	0°♁36'09	-1.5m	
	2714 Jan 02 08:48	0°♁				2719 Jan 22 00:38	30°♁☿		
desc. node	2714 Feb 10 10:09	25°♁54'42		direct		2719 Feb 28 18:06	21°☿15'42		
	2714 Feb 16 13:00	0°♁				2719 Apr 11 20:40	0°♁		
	2714 Apr 02 04:54	0°♁				2719 Jun 14 10:10	0°♁		
	2714 May 17 02:47	0°♄				2719 Aug 05 07:05	0°♁		
	2714 Jul 04 05:56	0°♅				2719 Sep 21 19:41	0°♁		
retrograde	2714 Sep 08 08:51	23°♅06'56		desc. node		2719 Oct 03 06:02	7°♁32'42		
min. Earth dist.	2714 Oct 04 23:35	18°♅39'59	0.39015 AU			2719 Nov 05 04:12	0°♁		
opposition	2714 Oct 10 19:03	16°♅57'57	-4°-2'-53	evening set		2719 Nov 15 22:17	7°♁33'59		
greatest brilliancy	2714 Oct 09 19:26	17°♅15'16	-2.8m	max. Earth dist.		2719 Nov 30 14:41	18°♁04'39	2.45584 AU	
direct	2714 Nov 09 17:13	11°♅40'09				2719 Dec 16 22:22	0°♁		
asc. node	2714 Dec 13 07:35	18°♅13'09							
	2715 Jan 09 11:38	0°♄		conjunction		2720 Jan 08 21:54	17°♁10'53	0°-51'-59	
	2715 Mar 04 04:06	0°♁		minimum elong		2720 Jan 08 19:55	17°♁07'07	0°52'00	
	2715 Apr 22 09:17	0°☿				2720 Jan 25 17:15	0°♁		
	2715 Jun 09 20:33	0°♁				2720 Mar 04 06:42	0°♄		
	2715 Jul 28 01:08	0°♁		morning rise		2720 Mar 11 07:45	5°♄31'58		
evening set	2715 Aug 28 19:33	19°♁58'59		greatest brilliancy		2720 Mar 26 20:12	17°♄44'14	1.2m	
	2715 Sep 13 13:51	0°♁				2720 Apr 11 10:55	0°♅		
max. Earth dist.	2715 Sep 28 14:00	9°♁37'14	2.65270 AU			2720 May 20 03:03	0°♄		
						2720 Jun 29 04:38	0°♁		
conjunction	2715 Oct 13 03:55	19°♁03'10	0°40'30	asc. node		2720 Aug 04 05:49	25°♁37'24		
minimum elong	2715 Oct 13 04:59	19°♁04'54	0°40'29			2720 Aug 10 15:02	0°☿		
	2715 Oct 29 21:30	0°♁				2720 Sep 25 20:54	0°♁		
morning rise	2715 Nov 27 03:24	18°♁48'12				2720 Nov 19 21:45	0°♁		
	2715 Dec 13 15:43	0°♁		retrograde		2721 Jan 15 12:03	15°♁17'22		
desc. node	2715 Dec 29 08:53	10°♁48'18		opposition		2721 Feb 24 16:49	5°♁30'42	4°28'08	
	2716 Jan 25 18:44	0°♁		min. Earth dist.		2721 Feb 24 02:24	5°♁45'06	0.67574 AU	
	2716 Mar 07 10:43	0°♁		greatest brilliancy		2721 Feb 24 12:56	5°♁34'34	-1.2m	

	2721 Mar 11 13:11	30° \mathbb{R} Ω			2726 Apr 29 17:48	0° \mathbb{I}	
direct	2721 Apr 06 06:16	25° Ω 47'10		evening set	2726 May 22 07:51	15° \mathbb{I} 59'50	
	2721 May 04 11:15	0° \mathbb{M}			2726 Jun 11 13:30	0° \mathcal{E}	
	2721 Jul 11 21:06	0° $\underline{\mathcal{A}}$					
desc. node	2721 Aug 20 04:56	22° $\underline{\mathcal{A}}$ 55'48		conjunction	2726 Jul 15 04:47	22° \mathcal{E} 39'33	0°57'02
	2721 Aug 31 12:43	0° \mathbb{M}		minimum elong	2726 Jul 15 03:22	22° \mathcal{E} 37'10	0°57'01
	2721 Oct 15 18:15	0° \mathcal{A}			2726 Jul 26 07:33	0° Ω	
	2721 Nov 26 14:13	0° \mathcal{Z}		max. Earth dist.	2726 Aug 03 23:14	5° Ω 40'10	2.61968 AU
	2722 Jan 05 03:38	0° \approx		morning rise	2726 Sep 02 03:16	24° Ω 31'52	
evening set	2722 Jan 09 23:18	3° \approx 44'20			2726 Sep 10 16:39	0° \mathbb{M}	
	2722 Feb 12 10:16	0° \mathcal{H}			2726 Oct 28 07:31	0° $\underline{\mathcal{A}}$	
					2726 Dec 16 04:16	0° \mathbb{M}	
conjunction	2722 Mar 17 06:06	25° \mathcal{H} 57'09	0°-55'-22		2727 Feb 05 11:30	0° \mathcal{A}	
minimum elong	2722 Mar 17 09:06	26° \mathcal{H} 03'04	0°55'21		2727 Apr 06 22:22	0° \mathcal{Z}	
	2722 Mar 22 09:25	0° \mathbb{Y}		desc. node	2727 Apr 12 01:50	1° \mathcal{Z} 59'13	
	2722 Apr 29 23:04	0° \mathcal{B}		retrograde	2727 May 24 06:00	10° \mathcal{Z} 54'50	
max. Earth dist.	2722 Apr 29 17:57	29° \mathbb{Y} 50'13	2.38224 AU	opposition	2727 Jun 26 11:43	4° \mathcal{Z} 34'08	-3°-45'-45
morning rise	2722 May 26 16:37	20° \mathcal{B} 12'30		greatest brilliancy	2727 Jun 28 01:22	4° \mathcal{Z} 03'28	-2.3m
	2722 Jun 08 22:31	0° \mathbb{I}		min. Earth dist.	2727 Jul 04 20:21	1° \mathcal{Z} 51'29	0.45377 AU
asc. node	2722 Jun 22 04:37	9° \mathbb{I} 38'08			2727 Jul 11 02:30	30° \mathbb{R} \mathcal{A}	
	2722 Jul 20 23:43	0° \mathcal{E}		direct	2727 Aug 01 20:41	26° \mathcal{A} 49'46	
	2722 Sep 03 15:57	0° Ω			2727 Aug 23 17:25	0° \mathcal{Z}	
	2722 Oct 21 21:26	0° \mathbb{M}			2727 Oct 22 23:36	0° \approx	
	2722 Dec 16 12:28	0° $\underline{\mathcal{A}}$			2727 Dec 05 13:21	0° \mathcal{H}	
retrograde	2723 Feb 19 13:04	18° $\underline{\mathcal{A}}$ 29'11			2728 Jan 15 15:03	0° \mathbb{Y}	
opposition	2723 Mar 30 21:08	9° $\underline{\mathcal{A}}$ 18'37	3°18'56	asc. node	2728 Feb 12 01:10	20° \mathbb{Y} 03'24	
greatest brilliancy	2723 Mar 31 09:22	9° $\underline{\mathcal{A}}$ 06'36	-1.3m		2728 Feb 25 18:50	0° \mathcal{B}	
min. Earth dist.	2723 Apr 03 03:20	8° $\underline{\mathcal{A}}$ 01'51	0.66086 AU		2728 Apr 08 03:04	0° \mathbb{I}	
	2723 Apr 30 17:11	30° \mathbb{R} \mathbb{M}			2728 May 22 02:45	0° \mathcal{E}	
direct	2723 May 11 07:40	29° \mathbb{M} 16'41		evening set	2728 Jul 06 16:54	0° Ω 00'51	
	2723 May 22 08:51	0° $\underline{\mathcal{A}}$			2728 Jul 06 16:23	0° Ω	
desc. node	2723 Jul 08 03:37	14° $\underline{\mathcal{A}}$ 50'56			2728 Aug 22 08:56	0° \mathbb{M}	
	2723 Aug 06 16:59	0° \mathbb{M}					
	2723 Sep 24 06:53	0° \mathcal{A}		conjunction	2728 Aug 23 11:51	0° \mathbb{M} 42'54	1°08'26
	2723 Nov 06 02:08	0° \mathcal{Z}		minimum elong	2728 Aug 23 12:02	0° \mathbb{M} 43'12	1°08'26
	2723 Dec 15 22:07	0° \approx		max. Earth dist.	2728 Aug 27 11:25	3° \mathbb{M} 15'16	2.67154 AU
	2724 Jan 23 06:51	0° \mathcal{H}		morning rise	2728 Oct 07 11:21	29° \mathbb{M} 20'07	
	2724 Mar 01 08:41	0° \mathbb{Y}			2728 Oct 08 12:26	0° $\underline{\mathcal{A}}$	
evening set	2724 Mar 21 10:38	15° \mathbb{Y} 38'52			2728 Nov 24 13:46	0° \mathbb{M}	
	2724 Apr 09 03:15	0° \mathcal{B}			2729 Jan 10 08:15	0° \mathcal{A}	
asc. node	2724 May 09 04:27	22° \mathcal{B} 31'33			2729 Feb 26 01:12	0° \mathcal{Z}	
	2724 May 19 09:10	0° \mathbb{I}		desc. node	2729 Feb 27 00:55	0° \mathcal{Z} 37'55	
					2729 Apr 14 12:16	0° \approx	
conjunction	2724 May 25 00:55	4° \mathbb{I} 06'24	0°10'16		2729 Jun 04 19:48	0° \mathcal{H}	
minimum elong	2724 May 25 00:11	4° \mathbb{I} 05'04	0°10'15	retrograde	2729 Aug 09 19:35	21° \mathcal{H} 30'23	
behind sun begin	2724 May 24 04:15	3° \mathbb{I} 29'01		min. Earth dist.	2729 Sep 08 04:03	16° \mathcal{H} 40'20	0.37200 AU
behind sun end	2724 May 25 20:06	4° \mathbb{I} 41'05		opposition	2729 Sep 09 01:35	16° \mathcal{H} 26'01	-6°-23'-46
	2724 Jun 30 14:46	0° \mathcal{E}		greatest brilliancy	2729 Sep 08 23:49	16° \mathcal{H} 27'12	-2.9m
max. Earth dist.	2724 Jul 04 07:55	2° \mathcal{E} 33'59	2.51548 AU	direct	2729 Oct 08 16:03	11° \mathcal{H} 31'41	
morning rise	2724 Jul 21 23:07	14° \mathcal{E} 36'10			2729 Dec 07 00:58	0° \mathbb{Y}	
	2724 Aug 14 01:04	0° Ω		asc. node	2729 Dec 30 01:03	12° \mathbb{Y} 46'38	
	2724 Sep 29 17:28	0° \mathbb{M}			2730 Jan 27 08:20	0° \mathcal{B}	
	2724 Nov 18 01:32	0° $\underline{\mathcal{A}}$			2730 Mar 15 09:51	0° \mathbb{I}	
	2725 Jan 11 16:21	0° \mathbb{M}			2730 May 01 04:21	0° \mathcal{E}	
retrograde	2725 Mar 30 19:42	24° \mathbb{M} 32'14			2730 Jun 17 10:46	0° Ω	
opposition	2725 May 07 00:40	16° \mathbb{M} 23'41	0°45'50		2730 Aug 04 00:55	0° \mathbb{M}	
greatest brilliancy	2725 May 07 08:11	16° \mathbb{M} 16'38	-1.7m	evening set	2730 Aug 14 12:22	6° \mathbb{M} 36'52	
min. Earth dist.	2725 May 13 21:25	13° \mathbb{M} 49'27	0.58138 AU	max. Earth dist.	2730 Sep 19 12:50	29° \mathbb{M} 28'48	2.66850 AU
desc. node	2725 May 25 03:06	10° \mathbb{M} 04'00			2730 Sep 20 08:22	0° $\underline{\mathcal{A}}$	
direct	2725 Jun 16 13:35	6° \mathbb{M} 42'44					
	2725 Aug 25 12:00	0° \mathcal{A}		conjunction	2730 Sep 28 23:26	5° $\underline{\mathcal{A}}$ 31'22	0°52'37
	2725 Oct 12 03:52	0° \mathcal{Z}		minimum elong	2730 Sep 29 00:30	5° $\underline{\mathcal{A}}$ 33'06	0°52'36
	2725 Nov 22 14:08	0° \approx			2730 Nov 05 18:09	0° \mathbb{M}	
	2725 Dec 31 17:59	0° \mathcal{H}		morning rise	2730 Nov 12 07:45	4° \mathbb{M} 18'36	
	2726 Feb 08 10:36	0° \mathbb{Y}			2730 Dec 20 21:05	0° \mathcal{A}	
	2726 Mar 19 20:14	0° \mathcal{B}		desc. node	2731 Jan 15 00:07	17° \mathcal{A} 07'11	
asc. node	2726 Mar 27 02:32	5° \mathcal{B} 25'19			2731 Feb 02 14:52	0° \mathcal{Z}	

	2731 Mar 17 02:50	0°♊		greatest brilliancy	2736 Feb 11 22:07	22°♏36'17	-1.3m
	2731 Apr 27 17:21	0°♋		direct	2736 Mar 23 06:14	12°♏55'26	
	2731 Jun 08 06:52	0°♌			2736 May 24 23:59	0°♍	
	2731 Jul 21 23:11	0°♍			2736 Jul 21 10:19	0°♎	
	2731 Sep 16 12:24	0°♐		desc. node	2736 Sep 05 20:42	28°♎20'54	
retrograde	2731 Oct 15 03:59	5°♐25'30			2736 Sep 08 10:26	0°♏	
min. Earth dist.	2731 Nov 12 04:02	0°♐00'57	0.46080 AU		2736 Oct 23 04:59	0°♐	
	2731 Nov 12 05:09	30°♑			2736 Dec 03 22:59	0°♑	
asc. node	2731 Nov 17 00:26	28°♑19'33		evening set	2736 Dec 16 22:11	9°♑40'24	
opposition	2731 Nov 20 09:25	27°♑07'55	0°11'38		2737 Jan 12 13:43	0°♒	
greatest brilliancy	2732 Jan 22 02:09	25°♑31'18	-2.9m	max. Earth dist.	2737 Jan 18 00:56	4°♒13'57	2.38088 AU
direct	2732 Dec 23 04:17	20°♑24'18					
	2732 Feb 03 18:08	0°♒		conjunction	2737 Feb 16 08:51	27°♒11'34	-1°-4'-44
	2732 Apr 04 11:07	0°♓		minimum elong	2737 Feb 16 09:10	27°♒12'11	1°04'45
	2732 May 26 07:17	0°♓			2737 Feb 19 22:17	0°♋	
	2732 Jul 14 22:53	0°♌			2737 Mar 29 22:35	0°♌	
	2732 Sep 01 01:57	0°♎		morning rise	2737 Apr 27 21:57	22°♌36'50	
evening set	2732 Sep 19 09:42	11°♎42'20			2737 May 07 12:13	0°♍	
max. Earth dist.	2732 Oct 13 02:36	27°♎07'32	2.61207 AU		2737 Jun 16 11:04	0°♎	
	2732 Oct 17 11:16	0°♏		asc. node	2737 Jul 08 21:08	16°♎12'11	
					2737 Jul 28 13:03	0°♏	
conjunction	2732 Nov 04 12:22	12°♏01'21	0°15'37		2737 Sep 11 13:18	0°♐	
minimum elong	2732 Nov 04 12:54	12°♏02'16	0°15'36		2737 Oct 31 03:58	0°♑	
behind sun begin	2732 Nov 04 08:00	11°♏54'01			2738 Jan 03 19:35	0°♒	
behind sun end	2732 Nov 04 17:49	12°♏10'31		retrograde	2738 Feb 05 14:20	5°♒41'33	
	2732 Nov 30 21:30	0°♐			2738 Mar 07 13:35	30°♑	
desc. node	2732 Dec 01 22:42	0°♐43'32		opposition	2738 Mar 17 09:56	26°♑14'09	3°54'30
morning rise	2732 Dec 21 18:04	14°♐33'58		greatest brilliancy	2738 Mar 17 17:03	26°♑07'06	-1.2m
	2733 Jan 12 09:03	0°♑		min. Earth dist.	2738 Mar 19 04:03	25°♑32'25	0.67474 AU
	2733 Feb 22 04:40	0°♒		direct	2738 Apr 27 16:45	16°♑16'01	
	2733 Apr 02 19:45	0°♋			2738 Jun 21 01:38	0°♒	
	2733 May 11 23:06	0°♌		desc. node	2738 Jul 24 19:49	16°♒39'53	
	2733 Jun 20 14:43	0°♍			2738 Aug 17 01:38	0°♓	
	2733 Aug 01 06:57	0°♐			2738 Oct 02 19:17	0°♐	
	2733 Sep 17 09:38	0°♑			2738 Nov 14 01:50	0°♑	
asc. node	2733 Oct 03 23:04	8°♑52'27			2738 Dec 23 17:33	0°♒	
retrograde	2733 Nov 27 20:58	24°♑57'43			2739 Jan 31 00:12	0°♋	
min. Earth dist.	2733 Dec 31 09:21	17°♑27'43	0.58736 AU	evening set	2739 Feb 22 02:01	17°♋27'30	
greatest brilliancy	2734 Jan 05 03:52	15°♑34'53	-1.6m		2739 Mar 09 23:43	0°♌	
opposition	2734 Jan 06 07:10	15°♑07'58	3°45'51	greatest brilliancy	2739 Mar 14 12:02	3°♌32'38	1.2m
direct	2734 Feb 12 07:39	6°♑37'32			2739 Apr 17 15:06	0°♍	
	2734 Apr 28 20:02	0°♎					
	2734 Jun 23 16:49	0°♏		conjunction	2739 May 01 01:45	10°♍12'29	0°-16'-53
	2734 Aug 12 22:38	0°♐		minimum elong	2739 May 01 03:12	10°♍15'14	0°16'53
	2734 Sep 28 23:04	0°♑		asc. node	2739 May 26 19:32	29°♍20'25	
desc. node	2734 Oct 19 21:06	13°♑57'10			2739 May 27 17:10	0°♎	
evening set	2734 Oct 29 06:19	20°♑20'22		max. Earth dist.	2739 Jun 18 15:55	15°♎50'18	2.46324 AU
	2734 Nov 12 05:51	0°♐		morning rise	2739 Jul 03 05:08	26°♎06'17	
max. Earth dist.	2734 Nov 13 13:37	0°♐55'27	2.50675 AU		2739 Jul 08 19:20	0°♑	
					2739 Aug 22 05:25	0°♒	
conjunction	2734 Dec 18 20:25	26°♐08'00	0°-34'-17		2739 Oct 08 06:16	0°♑	
minimum elong	2734 Dec 18 18:55	26°♐05'15	0°34'16		2739 Nov 27 23:59	0°♒	
	2734 Dec 24 03:09	0°♑			2740 Jan 28 12:00	0°♓	
	2735 Feb 02 03:13	0°♒		retrograde	2740 Mar 14 02:18	10°♓00'33	
morning rise	2735 Feb 13 05:24	8°♒30'33		opposition	2740 Apr 21 07:38	1°♓23'36	1°56'55
	2735 Mar 12 21:55	0°♋		greatest brilliancy	2740 Apr 21 21:24	1°♓10'23	-1.5m
	2735 Apr 20 06:12	0°♌			2740 Apr 24 22:35	30°♑	
	2735 May 29 01:21	0°♍		min. Earth dist.	2740 Apr 26 20:07	29°♒16'32	0.62002 AU
	2735 Jul 08 06:44	0°♎		direct	2740 Jun 01 11:46	21°♒27'28	
	2735 Aug 20 03:21	0°♏		desc. node	2740 Jun 10 18:01	21°♒59'08	
asc. node	2735 Aug 21 22:40	1°♑12'26			2740 Jul 11 12:10	0°♓	
	2735 Oct 06 22:54	0°♒			2740 Sep 07 06:01	0°♐	
	2735 Dec 14 11:35	0°♑			2740 Oct 21 23:43	0°♒	
retrograde	2736 Jan 03 03:43	2°♑19'17			2740 Dec 01 12:22	0°♓	
	2736 Jan 21 16:17	30°♑			2741 Jan 09 05:31	0°♋	
min. Earth dist.	2736 Feb 10 06:46	23°♒15'43	0.66352 AU		2741 Feb 16 13:51	0°♌	
opposition	2736 Feb 12 09:53	22°♒24'30	4°34'49		2741 Mar 27 15:23	0°♍	

asc. node	2741 Apr 12 19:31	12°♄07'16		2746 May 08 22:48	0°♄	
evening set	2741 Apr 30 10:32	25°♄05'29		2746 Jun 22 09:17	0°♄	
	2741 May 07 04:49	0°♄		2746 Aug 14 01:26	0°♄	
	2741 Jun 18 17:06	0°♄		retrograde	2746 Sep 22 21:15	9°♄52'12
				min. Earth dist.	2746 Oct 19 09:09	5°♄12'48 0.41136 AU
conjunction	2741 Jun 27 02:48	5°♄45'46 0°43'28		opposition	2746 Oct 26 17:25	2°♄54'40 -2°-23'-35
minimum elong	2741 Jun 27 01:00	5°♄42'42 0°43'27		greatest brilliancy	2746 Oct 25 21:13	3°♄10'36 -2.7m
max. Earth dist.	2741 Jul 24 09:56	24°♄08'37 2.58468 AU			2746 Nov 05 15:10	30°♄
	2741 Aug 02 06:18	0°♄		direct	2746 Nov 26 14:32	27°♄08'02
morning rise	2741 Aug 17 20:08	10°♄11'52		asc. node	2746 Dec 03 16:15	27°♄27'30
	2741 Sep 17 15:41	0°♄			2746 Dec 18 05:19	0°♄
	2741 Nov 04 17:02	0°♄			2747 Feb 23 17:02	0°♄
	2741 Dec 24 22:58	0°♄			2747 Apr 16 05:09	0°♄
	2742 Feb 18 18:42	0°♄			2747 Jun 04 14:38	0°♄
desc. node	2742 Apr 28 16:46	21°♄03'30			2747 Jul 23 05:48	0°♄
retrograde	2742 Apr 30 11:07	21°♄04'38		evening set	2747 Sep 05 23:35	28°♄06'20
opposition	2742 Jun 04 13:37	13°♄54'53 -1°-45'-11			2747 Sep 08 23:02	0°♄
greatest brilliancy	2742 Jun 05 08:50	13°♄38'01 -2.0m		max. Earth dist.	2747 Oct 04 01:27	16°♄07'14 2.64029 AU
min. Earth dist.	2742 Jun 12 22:43	10°♄59'11 0.50662 AU				
direct	2742 Jul 13 03:08	5°♄08'01		conjunction	2747 Oct 21 11:25	27°♄28'52 0°32'06
	2742 Sep 21 04:55	0°♄		minimum elong	2747 Oct 21 12:22	27°♄30'26 0°32'05
	2742 Nov 05 19:01	0°♄			2747 Oct 25 07:16	0°♄
	2742 Dec 16 14:28	0°♄		morning rise	2747 Dec 06 01:46	28°♄02'19
	2743 Jan 25 07:27	0°♄			2747 Dec 08 22:30	0°♄
asc. node	2743 Feb 28 18:41	25°♄46'06		desc. node	2747 Dec 19 14:18	7°♄20'45
	2743 Mar 06 12:30	0°♄			2748 Jan 20 19:41	0°♄
	2743 Apr 17 02:57	0°♄			2748 Mar 02 03:41	0°♄
	2743 May 30 12:35	0°♄			2748 Apr 11 08:23	0°♄
evening set	2743 Jun 20 22:06	14°♄20'53			2748 May 21 02:08	0°♄
	2743 Jul 14 16:22	0°♄			2748 Jun 30 12:40	0°♄
					2748 Aug 12 21:08	0°♄
conjunction	2743 Aug 09 13:40	16°♄47'14 1°07'39			2748 Oct 06 21:13	0°♄
minimum elong	2743 Aug 09 13:15	16°♄46'32 1°07'39		asc. node	2748 Oct 20 16:01	4°♄41'37
max. Earth dist.	2743 Aug 19 06:40	23°♄01'40 2.65755 AU		retrograde	2748 Nov 11 23:41	7°♄58'41
	2743 Aug 30 04:07	0°♄		min. Earth dist.	2748 Dec 13 09:06	1°♄14'56 0.54175 AU
morning rise	2743 Sep 24 16:02	16°♄13'50			2748 Dec 16 15:34	30°♄
	2743 Oct 16 09:43	0°♄		greatest brilliancy	2748 Dec 19 11:04	28°♄54'50 -1.9m
	2743 Dec 02 23:16	0°♄		opposition	2748 Dec 20 13:44	28°♄29'11 2°49'42
	2744 Jan 19 22:04	0°♄		direct	2749 Jan 25 01:45	20°♄33'32
	2744 Mar 09 02:56	0°♄			2749 Mar 09 06:47	0°♄
desc. node	2744 Mar 15 16:04	3°♄52'04			2749 May 10 15:28	0°♄
	2744 May 01 23:54	0°♄			2749 Jul 02 02:05	0°♄
retrograde	2744 Jul 08 04:21	20°♄45'46			2749 Aug 20 06:40	0°♄
opposition	2744 Aug 07 15:23	15°♄40'10 -6°-35'-35			2749 Oct 05 23:28	0°♄
greatest brilliancy	2744 Aug 08 22:56	15°♄18'26 -2.8m		evening set	2749 Oct 13 00:22	4°♄39'42
min. Earth dist.	2744 Aug 12 00:51	14°♄27'49 0.38607 AU		max. Earth dist.	2749 Oct 30 21:02	16°♄39'57 2.55313 AU
direct	2744 Sep 08 03:06	10°♄04'14		desc. node	2749 Nov 05 13:16	20°♄32'09
	2744 Nov 07 17:24	0°♄			2749 Nov 19 06:36	0°♄
	2744 Dec 26 04:45	0°♄				
asc. node	2745 Jan 15 16:38	13°♄43'55		conjunction	2749 Nov 30 05:48	7°♄40'36 0°-14'-25
	2745 Feb 08 15:55	0°♄		minimum elong	2749 Nov 30 05:11	7°♄39'31 0°14'26
	2745 Mar 25 00:44	0°♄		behind sun begin	2749 Nov 29 19:28	7°♄22'25
	2745 May 09 08:28	0°♄		behind sun end	2749 Nov 30 14:54	7°♄56'37
	2745 Jun 24 18:51	0°♄			2749 Dec 31 08:30	0°♄
evening set	2745 Jul 30 21:55	23°♄00'35		morning rise	2750 Jan 21 00:00	15°♄14'14
	2745 Aug 10 22:18	0°♄			2750 Feb 09 14:52	0°♄
max. Earth dist.	2745 Sep 10 16:37	19°♄32'09 2.67611 AU			2750 Mar 20 16:00	0°♄
					2750 Apr 28 05:44	0°♄
conjunction	2745 Sep 14 22:17	22°♄13'57 1°01'32			2750 Jun 06 05:49	0°♄
minimum elong	2745 Sep 14 23:09	22°♄15'21 1°01'31			2750 Jul 16 18:38	0°♄
	2745 Sep 27 02:34	0°♄			2750 Aug 29 10:43	0°♄
morning rise	2745 Oct 29 03:58	20°♄35'11		asc. node	2750 Sep 07 13:55	5°♄51'09
	2745 Nov 12 16:33	0°♄			2750 Oct 19 13:21	0°♄
	2745 Dec 28 07:22	0°♄		retrograde	2750 Dec 20 13:39	18°♄47'11
desc. node	2746 Jan 31 14:58	23°♄01'45		min. Earth dist.	2751 Jan 26 00:51	10°♄16'39 0.64127 AU
	2746 Feb 10 21:31	0°♄		opposition	2751 Jan 29 16:25	8°♄49'05 4°28'46
	2746 Mar 26 14:55	0°♄		greatest brilliancy	2751 Jan 28 21:09	9°♄08'21 -1.4m

	2751 Mar 02 03:16	30° \mathbb{R} \mathfrak{S}		conjunction	2756 Jun 06 18:32	16° \mathbb{I} 38'21	0°23'59
direct	2751 Mar 09 14:28	29° \mathfrak{S} 38'50		minimum elong	2756 Jun 06 17:05	16° \mathbb{I} 35'47	0°23'58
	2751 Mar 17 07:09	0° \mathcal{Q}			2756 Jun 25 20:44	0° \mathfrak{S}	
	2751 Jun 07 14:03	0° \mathfrak{M}		max. Earth dist.	2756 Jul 12 05:27	11° \mathfrak{S} 13'04	2.54215 AU
	2751 Jul 30 22:52	0° \mathfrak{A}		morning rise	2756 Aug 01 04:43	24° \mathfrak{S} 38'32	
	2751 Sep 16 23:04	0° \mathbb{M}			2756 Aug 09 06:52	0° \mathcal{Q}	
desc. node	2751 Sep 23 11:56	4° \mathbb{M} 16'32			2756 Sep 24 18:56	0° \mathfrak{M}	
	2751 Oct 31 11:28	0° \mathfrak{X}			2756 Nov 12 12:30	0° \mathfrak{A}	
evening set	2751 Nov 26 18:14	18° \mathfrak{X} 40'22			2757 Jan 03 23:58	0° \mathbb{M}	
	2751 Dec 12 06:06	0° \mathfrak{Z}			2757 Mar 14 02:38	0° \mathfrak{X}	
max. Earth dist.	2751 Dec 12 21:22	0° \mathfrak{Z} 28'11	2.42743 AU	retrograde	2757 Apr 10 03:45	3° \mathfrak{X} 55'31	
	2752 Jan 20 23:49	0° \approx			2757 May 05 07:03	30° \mathbb{R} \mathbb{M}	
				desc. node	2757 May 15 07:57	26° \mathbb{M} 36'07	
conjunction	2752 Jan 22 02:44	0° \approx 51'49	0°-59'-35	opposition	2757 May 16 17:27	26° \mathbb{M} 05'26	0°-3'-41
minimum elong	2752 Jan 22 01:01	0° \approx 48'30	0°59'35	greatest brilliancy	2754 Jul 21 11:35	3° \mathfrak{S} 42'36	-12.8m
	2752 Feb 28 11:35	0° \mathfrak{H}		min. Earth dist.	2757 May 24 06:03	23° \mathbb{M} 19'39	0.55672 AU
morning rise	2752 Mar 28 01:38	22° \mathfrak{H} 31'06		direct	2757 Jun 25 17:52	16° \mathbb{M} 38'37	
	2752 Apr 06 13:55	0° \mathcal{Y}			2757 Aug 14 13:54	0° \mathfrak{X}	
	2752 May 15 04:12	0° \mathfrak{B}			2757 Oct 05 04:55	0° \mathfrak{Z}	
	2752 Jun 24 03:25	0° \mathbb{I}			2757 Nov 16 14:10	0° \approx	
asc. node	2752 Jul 25 13:11	22° \mathbb{I} 30'30			2757 Dec 26 04:19	0° \mathfrak{H}	
	2752 Aug 05 08:24	0° \mathfrak{S}			2758 Feb 03 03:14	0° \mathcal{Y}	
	2752 Sep 19 22:54	0° \mathcal{Q}			2758 Mar 14 17:43	0° \mathfrak{B}	
	2752 Nov 11 02:23	0° \mathfrak{M}		asc. node	2758 Mar 17 10:32	2° \mathfrak{B} 00'38	
retrograde	2753 Jan 23 03:12	23° \mathfrak{M} 04'10			2758 Apr 24 19:37	0° \mathbb{I}	
opposition	2753 Mar 04 06:21	13° \mathfrak{M} 23'21	4°18'56	evening set	2758 Jun 02 14:37	27° \mathbb{I} 08'46	
greatest brilliancy	2753 Mar 04 06:40	13° \mathfrak{M} 23'02	-1.2m		2758 Jun 06 18:44	0° \mathfrak{S}	
min. Earth dist.	2753 Mar 04 12:03	13° \mathfrak{M} 17'40	0.67828 AU		2758 Jul 21 15:09	0° \mathcal{Q}	
direct	2753 Apr 14 03:57	3° \mathfrak{M} 33'28					
	2753 Jul 04 17:59	0° \mathfrak{A}		conjunction	2758 Jul 24 18:17	2° \mathcal{Q} 03'12	1°02'22
desc. node	2753 Aug 10 10:43	20° \mathfrak{A} 30'03		minimum elong	2758 Jul 24 17:11	2° \mathcal{Q} 01'25	1°02'22
	2753 Aug 26 00:56	0° \mathbb{M}		max. Earth dist.	2758 Aug 09 18:55	12° \mathcal{Q} 29'43	2.63547 AU
	2753 Oct 10 17:54	0° \mathfrak{X}			2758 Sep 06 00:07	0° \mathfrak{M}	
	2753 Nov 21 17:40	0° \mathfrak{Z}		morning rise	2758 Sep 10 12:12	2° \mathfrak{M} 52'21	
	2753 Dec 31 08:04	0° \approx			2758 Oct 23 10:27	0° \mathfrak{A}	
evening set	2754 Jan 24 20:27	19° \approx 08'40			2758 Dec 10 17:22	0° \mathbb{M}	
	2754 Feb 07 14:49	0° \mathfrak{H}			2759 Jan 29 11:06	0° \mathfrak{X}	
	2754 Mar 17 13:50	0° \mathcal{Y}			2759 Mar 24 13:33	0° \mathfrak{Z}	
				desc. node	2759 Apr 02 07:02	4° \mathfrak{Z} 19'03	
conjunction	2754 Apr 02 20:04	12° \mathcal{Y} 44'35	0°-43'-42	retrograde	2759 Jun 08 15:44	24° \mathfrak{Z} 19'03	
minimum elong	2754 Apr 02 23:23	12° \mathcal{Y} 51'03	0°43'41	opposition	2759 Jul 10 18:05	18° \mathfrak{Z} 27'41	-4°-57'-35
	2754 Apr 25 03:28	0° \mathfrak{B}		greatest brilliancy	2759 Jul 12 12:49	17° \mathfrak{Z} 54'38	-2.5m
max. Earth dist.	2754 May 23 23:51	21° \mathfrak{B} 47'03	2.40876 AU	min. Earth dist.	2759 Jul 18 07:43	16° \mathfrak{Z} 07'59	0.42596 AU
	2754 Jun 04 02:56	0° \mathbb{I}		direct	2759 Aug 14 12:45	11° \mathfrak{Z} 27'50	
morning rise	2754 Jun 10 06:03	4° \mathbb{I} 28'46			2759 Oct 10 22:57	0° \approx	
asc. node	2754 Jun 12 13:17	6° \mathbb{I} 09'09			2759 Nov 27 11:29	0° \mathfrak{H}	
	2754 Jul 16 02:58	0° \mathfrak{S}			2760 Jan 08 23:06	0° \mathcal{Y}	
	2754 Aug 29 14:57	0° \mathcal{Q}		asc. node	2760 Feb 02 09:49	17° \mathcal{Y} 31'26	
	2754 Oct 16 05:52	0° \mathfrak{M}			2760 Feb 19 21:47	0° \mathfrak{B}	
	2754 Dec 08 08:55	0° \mathfrak{A}			2760 Apr 02 18:48	0° \mathbb{I}	
retrograde	2755 Feb 27 19:29	26° \mathfrak{A} 27'14			2760 May 17 03:07	0° \mathfrak{S}	
opposition	2755 Apr 07 19:47	17° \mathfrak{A} 27'16	2°52'30		2760 Jul 01 22:34	0° \mathcal{Q}	
greatest brilliancy	2755 Apr 08 09:36	17° \mathfrak{A} 13'47	-1.3m	evening set	2760 Jul 15 17:22	8° \mathcal{Q} 52'59	
min. Earth dist.	2755 Apr 11 21:38	15° \mathfrak{A} 51'54	0.64909 AU		2760 Aug 17 18:00	0° \mathfrak{M}	
direct	2755 May 19 06:23	7° \mathfrak{A} 25'27					
desc. node	2755 Jun 28 09:33	15° \mathfrak{A} 46'08		conjunction	2760 Aug 31 17:37	8° \mathfrak{M} 54'05	1°06'58
	2755 Jul 29 20:12	0° \mathbb{M}		minimum elong	2760 Aug 31 18:06	8° \mathfrak{M} 54'51	1°06'59
	2755 Sep 18 10:01	0° \mathfrak{X}		max. Earth dist.	2760 Sep 01 17:14	9° \mathfrak{M} 31'39	2.67555 AU
	2755 Oct 31 18:39	0° \mathfrak{Z}			2760 Oct 03 21:17	0° \mathfrak{A}	
	2755 Dec 10 19:35	0° \approx		morning rise	2760 Oct 15 07:42	7° \mathfrak{A} 17'32	
	2756 Jan 18 06:45	0° \mathfrak{H}			2760 Nov 19 18:00	0° \mathbb{M}	
	2756 Feb 25 10:08	0° \mathcal{Y}			2761 Jan 05 01:02	0° \mathfrak{X}	
	2756 Apr 04 06:15	0° \mathfrak{B}		desc. node	2761 Feb 17 07:19	28° \mathfrak{X} 20'14	
evening set	2756 Apr 05 15:45	1° \mathfrak{B} 03'35			2761 Feb 19 20:00	0° \mathfrak{Z}	
asc. node	2756 Apr 29 11:48	18° \mathfrak{B} 55'51			2761 Apr 06 12:24	0° \approx	
	2756 May 14 13:55	0° \mathbb{I}			2761 May 23 08:11	0° \mathfrak{H}	
					2761 Jul 17 00:58	0° \mathcal{Y}	

retrograde	2761 Aug 27 00:38	9°Υ58'42			2766 Aug 07 20:49	0°♄	
min. Earth dist.	2761 Sep 23 09:54	5°Υ30'22	0.37820 AU		2766 Sep 24 05:21	0°♍	
opposition	2761 Sep 27 08:04	4°Υ24'59	-5°-14'-30	desc. node	2766 Oct 10 03:06	10°♍32'27	
greatest brilliancy	2761 Sep 26 14:03	4°Υ37'30	-2.9m		2766 Nov 07 14:19	0°♁	
	2761 Oct 17 10:02	30°♊		evening set	2766 Nov 08 02:03	0°♁20'26	
direct	2761 Oct 26 20:14	29°♊24'16		max. Earth dist.	2766 Nov 22 13:58	10°♁33'07	2.47900 AU
	2761 Nov 05 08:35	0°Υ			2766 Dec 19 11:00	0°♄	
asc. node	2761 Dec 20 08:10	14°Υ58'39					
	2762 Jan 17 15:27	0°♋		conjunction	2766 Dec 30 09:35	8°♄06'05	0°-44'-54
	2762 Mar 08 13:46	0°♌		minimum elong	2766 Dec 30 07:42	8°♄02'35	0°44'53
	2762 Apr 25 12:54	0°♍			2767 Jan 28 08:51	0°♎	
	2762 Jun 12 10:00	0°♎		morning rise	2767 Feb 27 23:29	23°♎41'48	
	2762 Jul 30 07:39	0°♏			2767 Mar 08 00:59	0°♊	
evening set	2762 Aug 22 17:05	14°♏43'58			2767 Apr 15 06:51	0°Υ	
	2762 Sep 15 18:10	0°♄			2767 May 23 23:32	0°♋	
max. Earth dist.	2762 Sep 24 19:35	5°♄47'43	2.66084 AU	greatest brilliancy	2767 May 23 15:16	29°Υ44'10	1.2m
					2767 Jul 03 01:29	0°♌	
conjunction	2762 Oct 07 01:05	13°♄39'49	0°45'56	asc. node	2767 Aug 12 06:17	28°♌25'31	
minimum elong	2762 Oct 07 02:11	13°♄41'36	0°45'55		2767 Aug 14 13:48	0°♍	
	2762 Nov 01 03:26	0°♍			2767 Sep 30 06:15	0°♎	
morning rise	2762 Nov 20 16:05	12°♍54'31			2767 Nov 27 04:34	0°♏	
	2762 Dec 16 02:08	0°♁		retrograde	2768 Jan 10 19:36	10°♏16'17	
desc. node	2763 Jan 05 06:00	13°♁48'03		min. Earth dist.	2768 Feb 18 19:03	0°♏56'31	0.67154 AU
	2763 Jan 28 12:17	0°♄		opposition	2768 Feb 20 02:01	0°♏25'34	4°32'23
	2763 Mar 11 13:05	0°♎		greatest brilliancy	2768 Feb 19 18:38	0°♏32'57	-1.2m
	2763 Apr 21 13:13	0°♊			2768 Feb 21 03:36	30°♎♎	
	2763 Jun 01 05:58	0°Υ		direct	2768 Mar 31 08:52	20°♎48'03	
	2763 Jul 13 04:55	0°♋			2768 May 13 22:32	0°♏	
	2763 Aug 29 22:42	0°♌			2768 Jul 15 07:12	0°♄	
retrograde	2763 Oct 26 07:16	18°♌27'57		desc. node	2768 Aug 27 02:14	25°♄27'56	
asc. node	2763 Nov 07 07:27	17°♌23'18			2768 Sep 03 06:30	0°♍	
min. Earth dist.	2763 Nov 24 11:38	12°♌35'00	0.49005 AU		2768 Oct 18 08:40	0°♁	
opposition	2763 Dec 02 13:37	9°♌37'30	1°21'14		2768 Nov 29 05:08	0°♄	
greatest brilliancy	2763 Dec 01 21:31	9°♌52'16	-2.2m	evening set	2768 Dec 30 01:59	23°♄15'55	
direct	2764 Jan 05 08:03	2°♌25'37			2769 Jan 07 19:53	0°♎	
	2764 Mar 27 06:39	0°♍			2769 Feb 15 03:42	0°♊	
	2764 May 20 10:19	0°♎					
	2764 Jul 09 21:29	0°♏		conjunction	2769 Mar 04 08:58	13°♊36'51	-1°-1'-20
	2764 Aug 27 08:49	0°♄		minimum elong	2769 Mar 04 10:57	13°♊40'47	1°01'20
evening set	2764 Sep 27 19:41	20°♄08'39		max. Earth dist.	2769 Mar 13 10:39	20°♊47'03	2.36978 AU
	2764 Oct 12 20:53	0°♍			2769 Mar 25 03:06	0°Υ	
max. Earth dist.	2764 Oct 19 05:46	4°♍13'08	2.59312 AU		2769 May 02 15:52	0°♋	
				morning rise	2769 May 14 12:43	9°♋03'17	
conjunction	2764 Nov 13 11:48	21°♍13'21	0°05'04		2769 Jun 11 13:52	0°♌	
minimum elong	2764 Nov 13 11:58	21°♍13'39	0°05'03	asc. node	2769 Jun 29 04:39	12°♌47'37	
behind sun begin	2764 Nov 12 16:50	20°♍41'01			2769 Jul 23 13:42	0°♍	
behind sun end	2764 Nov 14 07:07	21°♍46'19			2769 Sep 06 07:05	0°♎	
desc. node	2764 Nov 22 04:21	27°♍11'02			2769 Oct 24 22:02	0°♏	
	2764 Nov 26 06:12	0°♁			2769 Dec 21 20:45	0°♄	
morning rise	2765 Jan 01 00:17	25°♁14'15		retrograde	2770 Feb 13 12:05	13°♄28'03	
	2765 Jan 07 14:38	0°♄		opposition	2770 Mar 25 02:18	4°♄09'29	3°35'00
	2765 Feb 17 05:32	0°♎		greatest brilliancy	2770 Mar 25 12:26	3°♄59'29	-1.3m
	2765 Mar 28 15:29	0°♊		min. Earth dist.	2770 Mar 27 16:24	3°♄08'18	0.66831 AU
	2765 May 06 13:21	0°Υ			2770 Apr 04 23:05	30°♎♏	
	2765 Jun 14 21:42	0°♋		direct	2770 May 05 12:25	24°♏08'46	
	2765 Jul 26 00:08	0°♌			2770 Jun 07 20:46	0°♄	
	2765 Sep 09 06:25	0°♍		desc. node	2770 Jul 15 00:35	15°♄37'08	
asc. node	2765 Sep 24 07:43	8°♍52'06			2770 Aug 10 14:03	0°♍	
	2765 Nov 09 23:21	0°♎			2770 Sep 27 08:50	0°♁	
retrograde	2765 Dec 06 08:56	4°♎16'35			2770 Nov 08 23:50	0°♄	
	2765 Dec 31 04:43	30°♎♏			2770 Dec 18 18:43	0°♎	
min. Earth dist.	2766 Jan 09 23:35	26°♏24'00	0.60893 AU	greatest brilliancy	2771 Jan 17 10:25	23°♎09'04	1.2m
greatest brilliancy	2766 Jan 14 01:37	24°♏46'44	-1.5m		2771 Jan 26 02:55	0°♊	
opposition	2766 Jan 15 02:59	24°♏21'33	4°07'21		2771 Mar 05 03:29	0°Υ	
direct	2766 Feb 21 21:25	15°♏35'17		evening set	2771 Mar 10 04:14	3°Υ56'47	
	2766 Apr 19 03:30	0°♎			2771 Apr 12 19:45	0°♋	
	2766 Jun 17 16:49	0°♏					

conjunction	2771 May 15 13:41	24° ♄ 35'08	0°-1'-4	desc. node	2776 Mar 05 21:56	2° ♄ 31'33	
minimum elong	2771 May 15 13:46	24° ♄ 35'17	0°01'05		2776 Apr 20 07:55	0° \approx	
behind sun begin	2771 May 14 11:13	23° ♄ 46'21			2776 Jun 18 13:59	0° ♄	
behind sun end	2771 May 16 16:18	25° ♄ 24'08		retrograde	2776 Jul 26 15:14	8° ♄ 04'27	
asc. node	2771 May 17 04:40	25° ♄ 46'54		opposition	2776 Aug 25 14:23	3° ♄ 07'55	-6°-47'00
	2771 May 22 22:45	0° ♄		greatest brilliancy	2776 Aug 26 05:00	2° ♄ 58'14	-2.9m
max. Earth dist.	2771 Jun 28 17:00	26° ♄ 16'36	2.49260 AU	min. Earth dist.	2776 Aug 27 06:14	2° ♄ 41'32	0.37436 AU
	2771 Jul 04 01:16	0° ♄			2776 Sep 07 06:06	30° ♄	
morning rise	2771 Jul 14 17:33	7° ♄ 22'03		direct	2776 Sep 24 18:23	28° \approx 03'13	
	2771 Aug 17 09:47	0° ♄			2776 Oct 12 00:13	0° ♄	
	2771 Oct 03 03:47	0° ♄			2776 Dec 16 02:45	0° ♄	
	2771 Nov 21 22:41	0° ♄		asc. node	2777 Jan 06 00:55	12° ♄ 58'16	
	2772 Jan 17 13:19	0° ♄			2777 Feb 01 09:19	0° ♄	
retrograde	2772 Mar 23 09:08	18° ♄ 37'26			2777 Mar 19 00:09	0° ♄	
opposition	2772 Apr 30 02:28	10° ♄ 15'22	1°17'42		2777 May 04 00:40	0° ♄	
greatest brilliancy	2772 Apr 30 13:30	10° ♄ 04'53	-1.6m		2777 Jun 19 20:55	0° ♄	
min. Earth dist.	2772 May 06 09:33	7° ♄ 52'19	0.59972 AU		2777 Aug 06 05:46	0° ♄	
desc. node	2772 May 31 23:46	0° ♄ 58'28		evening set	2777 Aug 08 08:21	1° ♄ 19'59	
direct	2772 Jun 09 23:58	0° ♄ 26'17		max. Earth dist.	2777 Sep 15 21:58	25° ♄ 47'58	2.67303 AU
	2772 Aug 30 16:56	0° ♄					
	2772 Oct 15 22:47	0° ♄		conjunction	2777 Sep 22 23:45	0° ♄ 18'49	0°56'43
	2772 Nov 25 23:17	0° \approx		minimum elong	2777 Sep 23 00:46	0° ♄ 20'26	0°56'42
	2773 Jan 03 22:17	0° ♄			2777 Sep 22 11:58	0° ♄	
	2773 Feb 11 10:42	0° ♄		morning rise	2777 Nov 06 05:15	28° ♄ 50'16	
	2773 Mar 22 15:39	0° ♄			2777 Nov 08 00:01	0° ♄	
asc. node	2773 Apr 03 02:58	8° ♄ 35'12			2777 Dec 23 08:32	0° ♄	
	2773 May 02 08:24	0° ♄		desc. node	2778 Jan 21 20:54	19° ♄ 58'46	
evening set	2773 May 13 04:09	7° ♄ 45'14			2778 Feb 05 11:26	0° ♄	
	2773 Jun 13 23:23	0° ♄			2778 Mar 20 11:33	0° \approx	
					2778 May 01 18:02	0° ♄	
conjunction	2773 Jul 07 15:08	16° ♄ 04'02	0°51'59		2778 Jun 13 06:20	0° ♄	
minimum elong	2773 Jul 07 13:30	16° ♄ 01'17	0°51'58		2778 Jul 29 02:48	0° ♄	
	2773 Jul 28 13:59	0° ♄		retrograde	2778 Oct 05 22:47	25° ♄ 17'43	
max. Earth dist.	2773 Jul 30 17:07	1° ♄ 24'08	2.60506 AU	min. Earth dist.	2778 Nov 02 03:48	20° ♄ 14'50	0.43758 AU
morning rise	2773 Aug 26 16:49	18° ♄ 58'08		opposition	2778 Nov 10 04:44	17° ♄ 32'51	0°-50'-8
	2773 Sep 12 21:57	0° ♄		greatest brilliancy	2778 Nov 09 19:45	17° ♄ 40'26	-2.5m
	2773 Oct 30 16:14	0° ♄		asc. node	2778 Nov 24 00:46	13° ♄ 25'53	
	2773 Dec 19 00:56	0° ♄		direct	2778 Dec 12 03:09	11° ♄ 14'13	
	2774 Feb 09 19:50	0° ♄			2779 Feb 13 02:24	0° ♄	
desc. node	2774 Apr 18 22:58	29° ♄ 03'47			2779 Apr 09 12:39	0° ♄	
	2774 Apr 22 22:31	0° ♄			2779 May 30 03:47	0° ♄	
retrograde	2774 May 13 09:16	2° ♄ 21'04			2779 Jul 18 07:57	0° ♄	
	2774 Jun 01 19:49	30° ♄			2779 Sep 04 07:05	0° ♄	
opposition	2774 Jun 16 11:50	25° ♄ 37'27	-2°-51'-59	evening set	2779 Sep 14 05:05	6° ♄ 19'11	
greatest brilliancy	2774 Jun 17 18:26	25° ♄ 11'36	-2.2m	max. Earth dist.	2779 Oct 09 18:58	22° ♄ 50'39	2.62574 AU
min. Earth dist.	2774 Jun 25 00:31	22° ♄ 45'06	0.47738 AU		2779 Oct 20 16:48	0° ♄	
direct	2774 Jul 23 23:29	17° ♄ 21'47					
	2774 Sep 08 13:44	0° ♄		conjunction	2779 Oct 29 23:19	6° ♄ 08'16	0°22'49
	2774 Oct 28 22:42	0° \approx		minimum elong	2779 Oct 30 00:04	6° ♄ 09'31	0°22'48
	2774 Dec 10 00:29	0° ♄			2779 Dec 04 06:12	0° ♄	
	2775 Jan 19 09:03	0° ♄		desc. node	2779 Dec 09 19:40	3° ♄ 50'12	
asc. node	2775 Feb 19 01:04	22° ♄ 42'06		morning rise	2779 Dec 15 08:56	7° ♄ 41'16	
	2775 Mar 01 00:32	0° ♄			2780 Jan 15 22:56	0° ♄	
	2775 Apr 11 23:05	0° ♄			2780 Feb 26 00:30	0° \approx	
	2775 May 25 14:57	0° ♄			2780 Apr 05 21:37	0° ♄	
evening set	2775 Jun 30 16:14	23° ♄ 56'05			2780 May 15 06:43	0° ♄	
	2775 Jul 09 23:06	0° ♄			2780 Jun 24 04:32	0° ♄	
					2780 Aug 05 08:52	0° ♄	
conjunction	2775 Aug 18 04:51	25° ♄ 18'52	1°08'37		2780 Sep 23 09:25	0° ♄	
minimum elong	2775 Aug 18 04:47	25° ♄ 18'46	1°08'37	asc. node	2780 Oct 10 23:14	8° ♄ 25'07	
max. Earth dist.	2775 Aug 24 15:19	29° ♄ 25'48	2.66642 AU	retrograde	2780 Nov 21 05:33	18° ♄ 22'08	
	2775 Aug 25 12:44	0° ♄		min. Earth dist.	2780 Dec 23 19:33	11° ♄ 12'32	0.56793 AU
morning rise	2775 Oct 02 14:38	24° ♄ 13'47		greatest brilliancy	2780 Dec 29 04:20	9° ♄ 07'00	-1.7m
	2775 Oct 11 16:50	0° ♄		opposition	2780 Dec 30 08:24	8° ♄ 39'37	3°25'46
	2775 Nov 27 23:10	0° ♄		direct	2781 Feb 04 17:55	0° ♄ 23'39	
	2776 Jan 14 04:59	0° ♄			2781 May 03 07:54	0° ♄	
	2776 Mar 01 20:29	0° ♄			2781 Jun 26 13:29	0° ♄	

	2781 Aug 15 08:42	0°♄		max. Earth dist.	2786 Jun 09 09:33	7°♄21'21	2.43879 AU
	2781 Oct 01 06:55	0°♌		morning rise	2786 Jun 23 17:03	17°♄37'53	
evening set	2781 Oct 22 03:23	13°♌54'02			2786 Jul 11 07:07	0°♄	
desc. node	2781 Oct 26 18:04	17°♌01'25			2786 Aug 24 16:12	0°♌	
max. Earth dist.	2781 Nov 07 09:22	24°♌59'15	2.52827 AU		2786 Oct 10 20:41	0°♍	
	2781 Nov 14 15:03	0°♊			2786 Dec 01 08:26	0°♄	
					2787 Feb 06 23:07	0°♌	
conjunction	2781 Dec 10 13:09	18°♊19'34	0°-25'-56	retrograde	2787 Mar 08 08:59	4°♌34'39	
minimum elong	2781 Dec 10 12:01	18°♊17'33	0°25'56		2787 Apr 04 09:28	30°♌♄	
	2781 Dec 26 15:36	0°♄		opposition	2787 Apr 16 00:05	25°♄46'45	2°21'42
morning rise	2782 Feb 02 15:53	28°♄22'17		greatest brilliancy	2787 Apr 16 14:16	25°♄33'01	-1.4m
	2782 Feb 04 19:16	0°♌		min. Earth dist.	2787 Apr 20 21:28	23°♄53'23	0.63434 AU
	2782 Mar 15 17:13	0°♋		direct	2787 May 27 08:42	15°♄47'11	
	2782 Apr 23 03:52	0°♍		desc. node	2787 Jun 18 15:03	18°♄38'55	
	2782 Jun 01 00:21	0°♊			2787 Jul 20 04:59	0°♌	
	2782 Jul 11 07:15	0°♄			2787 Sep 12 03:44	0°♊	
	2782 Aug 23 08:53	0°♄			2787 Oct 26 07:09	0°♄	
asc. node	2782 Aug 28 22:31	3°♄40'34			2787 Dec 05 15:07	0°♌	
	2782 Oct 11 02:37	0°♌			2788 Jan 13 05:34	0°♋	
retrograde	2782 Dec 28 09:33	27°♌05'24			2788 Feb 20 11:14	0°♍	
min. Earth dist.	2783 Feb 03 19:53	18°♌16'05	0.65479 AU		2788 Mar 30 09:16	0°♊	
opposition	2783 Feb 06 15:21	17°♌08'35	4°34'06	asc. node	2788 Apr 19 19:30	15°♊20'06	
greatest brilliancy	2783 Feb 06 00:09	17°♌23'47	-1.3m	evening set	2788 Apr 20 00:46	15°♊29'53	
direct	2783 Mar 18 02:48	7°♌47'16			2788 May 09 18:42	0°♄	
	2783 May 30 20:45	0°♍					
	2783 Jul 25 09:15	0°♄		conjunction	2788 Jun 18 15:36	28°♄17'02	0°35'56
	2783 Sep 12 00:02	0°♌		minimum elong	2788 Jun 18 13:51	28°♄13'58	0°35'55
desc. node	2783 Sep 13 17:27	1°♌06'58			2788 Jun 21 03:06	0°♄	
	2783 Oct 26 17:09	0°♊		max. Earth dist.	2788 Jul 19 12:42	19°♄19'59	2.56659 AU
	2783 Dec 07 12:42	0°♄			2788 Aug 04 13:26	0°♌	
evening set	2783 Dec 08 10:14	0°♄39'47		morning rise	2788 Aug 10 21:34	4°♌10'20	
max. Earth dist.	2783 Dec 29 18:01	16°♄38'04	2.39980 AU		2788 Sep 19 22:38	0°♍	
	2784 Jan 16 05:32	0°♌			2788 Nov 07 05:17	0°♄	
					2788 Dec 28 05:28	0°♌	
conjunction	2784 Feb 05 12:39	15°♌45'45	-1°-4'-5		2789 Feb 25 08:19	0°♊	
minimum elong	2784 Feb 05 11:52	15°♌44'12	1°04'06	retrograde	2789 Apr 21 06:56	13°♊51'13	
	2784 Feb 23 15:52	0°♋		desc. node	2789 May 05 13:38	12°♊34'49	
	2784 Apr 01 17:02	0°♍		opposition	2789 May 27 02:20	6°♊22'25	0°-59'-27
morning rise	2784 Apr 14 11:28	10°♍00'50		greatest brilliancy	2789 May 27 13:08	6°♊12'44	-1.9m
	2784 May 10 06:18	0°♊		min. Earth dist.	2789 Jun 04 04:25	3°♊28'41	0.52974 AU
	2784 Jun 19 04:06	0°♄			2789 Jun 15 06:21	30°♌♌	
asc. node	2784 Jul 15 21:26	19°♄16'16		direct	2789 Jul 05 10:13	27°♌15'07	
	2784 Jul 31 05:41	0°♄			2789 Jul 26 05:35	0°♊	
	2784 Sep 14 09:02	0°♌			2789 Sep 27 05:11	0°♄	
	2784 Nov 03 17:26	0°♍			2789 Nov 10 03:24	0°♌	
	2785 Jan 19 12:15	0°♄			2789 Dec 20 08:09	0°♋	
retrograde	2785 Jan 30 19:07	0°♄45'59			2790 Jan 28 15:55	0°♍	
	2785 Feb 10 15:34	30°♌♍		asc. node	2790 Mar 07 18:49	28°♍41'44	
opposition	2785 Mar 11 19:08	21°♍12'08	4°05'52		2790 Mar 09 13:02	0°♊	
greatest brilliancy	2785 Mar 11 23:20	21°♍07'57	-1.2m		2790 Apr 19 20:15	0°♄	
min. Earth dist.	2785 Mar 12 21:04	20°♍46'23	0.67765 AU		2790 Jun 01 23:43	0°♄	
direct	2785 Apr 21 23:03	11°♍17'10		evening set	2790 Jun 13 06:15	7°♄37'50	
	2785 Jun 26 13:46	0°♄			2790 Jul 16 22:49	0°♌	
desc. node	2785 Jul 31 16:54	18°♄26'08					
	2785 Aug 20 07:29	0°♌		conjunction	2790 Aug 02 22:30	11°♌04'20	1°06'00
	2785 Oct 05 15:23	0°♊		minimum elong	2790 Aug 02 21:47	11°♌03'11	1°06'00
	2785 Nov 16 20:12	0°♄		max. Earth dist.	2790 Aug 15 10:50	19°♌09'33	2.64864 AU
	2785 Dec 26 11:59	0°♌			2790 Sep 01 08:22	0°♍	
	2786 Feb 02 18:49	0°♋		morning rise	2790 Sep 18 16:41	11°♍03'09	
evening set	2786 Feb 09 13:58	5°♋22'32			2790 Oct 18 15:24	0°♄	
	2786 Mar 12 17:49	0°♍			2790 Dec 05 11:34	0°♌	
					2791 Jan 23 02:36	0°♊	
conjunction	2786 Apr 19 02:41	29°♍04'37	0°-28'-55		2791 Mar 14 22:48	0°♄	
minimum elong	2786 Apr 19 05:10	29°♍09'23	0°28'54	desc. node	2791 Mar 23 13:12	4°♄48'10	
	2786 Apr 20 07:35	0°♊			2791 May 14 14:33	0°♌	
	2786 May 30 07:16	0°♄		retrograde	2791 Jun 25 06:06	9°♌02'39	
asc. node	2786 Jun 02 19:43	2°♄34'28		opposition	2791 Jul 26 09:33	3°♌39'10	-6°00'-54

greatest brilliancy	2791 Jul 28 01:44	3° 30 09'59	-2.7m			2796 Oct 08 05:52	0° 00	
min. Earth dist.	2791 Aug 01 12:57	1° 30 52'54	0.40157 AU	max. Earth dist.		2796 Oct 25 16:04	11° 00 35'48	2.57189 AU
	2791 Aug 08 16:31	30° 00 30		desc. node		2796 Nov 12 10:24	23° 00 39'27	
direct	2791 Aug 28 07:34	27° 00 27'22				2796 Nov 21 15:06	0° 00	
	2791 Sep 16 19:40	0° 00						
	2791 Nov 17 14:36	0° 00 30		conjunction		2796 Nov 22 19:55	0° 00 49'59	0°-6'-4
	2792 Jan 01 12:52	0° 00 30		minimum elong		2796 Nov 22 19:41	0° 00 49'35	0°06'06
asc. node	2792 Jan 23 17:05	15° 00 24'48		behind sun begin		2796 Nov 22 00:30	0° 00 16'18	
	2792 Feb 13 15:31	0° 00 30		behind sun end		2796 Nov 23 14:52	1° 00 22'53	
	2792 Mar 28 05:17	0° 00 30				2797 Jan 02 20:48	0° 00 30	
	2792 May 12 00:46	0° 00 30		morning rise		2797 Jan 11 23:57	6° 00 34'10	
	2792 Jun 27 03:11	0° 00 30				2797 Feb 12 07:35	0° 00 30	
evening set	2792 Jul 24 12:02	17° 00 31'21				2797 Mar 23 12:42	0° 00 30	
	2792 Aug 13 02:25	0° 00 30				2797 May 01 05:44	0° 00 30	
max. Earth dist.	2792 Sep 06 22:46	15° 00 37'41	2.67692 AU			2797 Jun 09 08:29	0° 00 30	
						2797 Jul 20 00:56	0° 00 30	
conjunction	2792 Sep 08 21:35	17° 00 37'06	1°04'13			2797 Sep 02 04:00	0° 00 30	
minimum elong	2792 Sep 08 22:18	17° 00 37'16	1°04'13	asc. node		2797 Sep 14 14:18	7° 00 34'53'39	
	2792 Sep 29 06:09	0° 00 30				2797 Oct 25 16:45	0° 00 30	
morning rise	2792 Oct 23 05:42	15° 00 32'05'3		retrograde		2797 Dec 14 13:57	13° 00 31'14	
	2792 Nov 14 23:08	0° 00 30		min. Earth dist.		2798 Jan 19 06:16	4° 00 35'58	0.62810 AU
	2792 Dec 30 21:12	0° 00 30		opposition		2798 Jan 23 13:56	3° 00 31'40	4°22'03
desc. node	2793 Feb 07 12:10	25° 00 37'40'00		greatest brilliancy		2798 Jan 22 15:40	3° 00 34'52	-1.4m
	2793 Feb 13 23:27	0° 00 30				2798 Jan 31 22:17	30° 00 30	
	2793 Mar 30 11:08	0° 00 30		direct		2798 Mar 03 00:47	24° 00 31'17	
	2793 May 13 23:55	0° 00 30				2798 Apr 05 09:55	0° 00 30	
	2793 Jun 29 22:37	0° 00 30				2798 Jun 11 05:55	0° 00 30	
retrograde	2793 Sep 11 19:35	27° 00 37'41'42				2798 Aug 02 15:20	0° 00 30	
min. Earth dist.	2793 Oct 08 06:06	23° 00 37'13'39	0.39357 AU			2798 Sep 19 09:49	0° 00 30	
greatest brilliancy	2793 Oct 13 11:09	21° 00 37'41'22	-2.8m	desc. node		2798 Sep 30 09:11	7° 00 31'2'43	
opposition	2793 Oct 14 10:21	21° 00 37'24'10	-3°-40'-1			2798 Nov 02 22:07	0° 00 30	
direct	2793 Nov 13 12:48	16° 00 37'01'34		evening set		2798 Nov 18 09:30	10° 00 37'53'29	
asc. node	2793 Dec 10 16:33	20° 00 37'27'06		max. Earth dist.		2798 Dec 02 23:49	21° 00 37'22'46	2.45062 AU
	2794 Jan 04 06:31	0° 00 30				2798 Dec 14 18:52	0° 00 30	
	2794 Feb 28 22:19	0° 00 30						
	2794 Apr 19 14:13	0° 00 30		conjunction		2799 Jan 11 19:03	20° 00 35'7'26	0°-54'-5
	2794 Jun 07 05:39	0° 00 30		minimum elong		2799 Jan 11 17:05	20° 00 35'3'42	0°54'05
	2794 Jul 25 12:33	0° 00 30				2799 Jan 23 15:17	0° 00 30	
evening set	2794 Aug 30 21:12	22° 00 37'51'21				2799 Mar 03 05:13	0° 00 30	
	2794 Sep 11 03:07	0° 00 30		morning rise		2799 Mar 15 22:05	9° 00 37'59'01	
max. Earth dist.	2794 Sep 30 04:15	12° 00 37'12'26	2.65044 AU	greatest brilliancy		2799 Mar 17 16:38	11° 00 37'22'42	1.2m
						2799 Apr 10 08:54	0° 00 30	
conjunction	2794 Oct 15 05:55	21° 00 37'58'18	0°38'13			2799 May 18 23:27	0° 00 30	
minimum elong	2794 Oct 15 06:57	22° 00 37'00'00	0°38'13			2799 Jun 27 22:21	0° 00 30	
	2794 Oct 27 12:20	0° 00 30		asc. node		2799 Aug 02 13:12	25° 00 37'25'40	
morning rise	2794 Nov 29 08:10	21° 00 37'12'11				2799 Aug 09 04:22	0° 00 30	
	2794 Dec 11 07:36	0° 00 30				2799 Sep 24 01:36	0° 00 30	
desc. node	2794 Dec 26 11:04	10° 00 37'24'11				2799 Nov 16 18:43	0° 00 30	
	2795 Jan 23 11:04	0° 00 30		retrograde		2800 Jan 18 10:31	18° 00 37'06'50	
	2795 Mar 06 02:49	0° 00 30		opposition		2800 Feb 27 16:22	8° 00 37'21'07	4°25'50
	2795 Apr 15 15:45	0° 00 30		min. Earth dist.		2800 Feb 27 05:50	8° 00 37'31'38	0.67665 AU
	2795 May 25 18:29	0° 00 30		greatest brilliancy		2800 Feb 27 13:20	8° 00 37'24'08	-1.2m
	2795 Jul 05 16:56	0° 00 30				2800 Mar 24 12:20	30° 00 37'30	
	2795 Aug 19 06:41	0° 00 30		direct		2800 Apr 08 08:36	28° 00 37'36'10	
asc. node	2795 Oct 28 16:23	29° 00 37'53'42				2800 Apr 24 00:24	0° 00 30	
	2795 Oct 29 16:23	0° 00 30				2800 Jul 08 15:42	0° 00 30	
retrograde	2795 Nov 05 14:16	0° 00 30'20'36		desc. node		2800 Aug 17 07:53	22° 00 37'49'14	
	2795 Nov 12 09:53	30° 00 37'30				2800 Aug 28 22:17	0° 00 30	
min. Earth dist.	2795 Dec 05 23:48	23° 00 37'59'42	0.51912 AU			2800 Oct 13 10:12	0° 00 30	
opposition	2795 Dec 13 16:15	21° 00 37'05'57	2°16'49			2800 Nov 24 09:49	0° 00 30	
greatest brilliancy	2795 Dec 12 16:20	21° 00 37'28'31	-2.0m			2801 Jan 03 01:18	0° 00 30	
direct	2796 Jan 17 10:27	13° 00 37'28'48		evening set		2801 Jan 13 04:45	7° 00 37'52'29	
	2796 Mar 17 06:29	0° 00 30				2801 Feb 10 08:48	0° 00 30	
	2796 May 14 04:04	0° 00 30						
	2796 Jul 04 16:39	0° 00 30		conjunction		2801 Mar 20 21:37	0° 00 37'27'07	0°-52'-58
	2796 Aug 22 14:12	0° 00 30		minimum elong		2801 Mar 21 00:48	0° 00 37'33'23	0°52'58
evening set	2796 Oct 06 09:17	28° 00 37'46'38				2801 Mar 20 07:50	0° 00 37	

	2801 Apr 27 20:24	0°♄		greatest brilliancy	2806 Jul 01 07:23	7°♄57'00	-2.4m
max. Earth dist.	2801 May 05 13:20	5°♄53'38	2.38673 AU	min. Earth dist.	2806 Jul 07 20:33	5°♄50'37	0.44837 AU
morning rise	2801 May 30 01:46	24°♄20'01		direct	2806 Aug 04 18:07	0°♄52'24	
	2801 Jun 06 17:54	0°♂			2806 Oct 19 09:17	0°≈	
asc. node	2801 Jun 19 13:24	9°♂20'26			2806 Dec 02 18:26	0°♄	
	2801 Jul 18 16:16	0°♄			2807 Jan 13 02:36	0°♄	
	2801 Sep 01 04:20	0°♂		asc. node	2807 Feb 09 09:59	19°♄55'01	
	2801 Oct 19 02:04	0°♄			2807 Feb 23 08:49	0°♄	
	2801 Dec 12 14:57	0°♄			2807 Apr 06 17:35	0°♂	
retrograde	2802 Feb 21 13:44	21°♄19'01			2807 May 20 16:54	0°♄	
opposition	2802 Apr 01 21:26	12°♄10'12	3°11'30		2807 Jul 05 05:57	0°♂	
greatest brilliancy	2802 Apr 02 09:53	11°♄58'00	-1.3m	evening set	2807 Jul 09 23:10	3°♂03'30	
min. Earth dist.	2802 Apr 05 07:40	10°♄49'42	0.65901 AU		2807 Aug 20 22:07	0°♄	
direct	2802 May 13 09:19	2°♄08'08					
desc. node	2802 Jul 05 06:29	15°♄32'44		conjunction	2807 Aug 26 13:51	3°♄36'25	1°08'07
	2802 Aug 03 10:20	0°♄		minimum elong	2807 Aug 26 14:06	3°♄36'50	1°08'08
	2802 Sep 21 17:35	0°♄		max. Earth dist.	2807 Aug 29 21:55	5°♄43'59	2.67249 AU
	2802 Nov 03 19:20	0°♄			2807 Oct 07 01:26	0°♄	
	2802 Dec 13 18:21	0°≈		morning rise	2807 Oct 10 11:25	2°♄10'22	
	2803 Jan 21 04:17	0°♄			2807 Nov 23 02:10	0°♄	
	2803 Feb 28 06:05	0°♄			2808 Jan 08 18:40	0°♄	
evening set	2803 Mar 25 22:23	19°♄59'15			2808 Feb 24 06:47	0°♄	
	2803 Apr 07 23:44	0°♄		desc. node	2808 Feb 25 04:12	0°♄34'28	
asc. node	2803 May 07 12:16	22°♄10'17			2808 Apr 11 06:44	0°≈	
	2803 May 18 04:02	0°♂			2808 May 31 03:16	0°♄	
				retrograde	2808 Aug 13 16:44	26°♄25'53	
conjunction	2803 May 29 02:09	7°♂55'06	0°13'53	min. Earth dist.	2808 Sep 11 14:43	21°♄42'23	0.37230 AU
minimum elong	2803 May 29 01:10	7°♂53'22	0°13'53	opposition	2808 Sep 13 04:03	21°♄17'21	-6°-11'-7
behind sun begin	2803 May 28 12:38	7°♂30'47		greatest brilliancy	2808 Sep 12 22:20	21°♄21'11	-2.9m
behind sun end	2803 May 29 13:43	8°♂15'56		direct	2808 Oct 12 16:40	16°♄23'22	
	2803 Jun 29 07:35	0°♄			2808 Dec 01 10:03	0°♄	
max. Earth dist.	2803 Jul 07 08:10	5°♄32'35	2.52072 AU	asc. node	2808 Dec 27 08:36	13°♄36'06	
morning rise	2803 Jul 25 11:59	17°♄54'02			2809 Jan 23 23:37	0°♄	
	2803 Aug 12 15:22	0°♂			2809 Mar 12 13:47	0°♂	
	2803 Sep 28 04:20	0°♄			2809 Apr 28 13:04	0°♄	
	2803 Nov 16 05:57	0°♄			2809 Jun 14 21:38	0°♂	
	2804 Jan 09 00:44	0°♄			2809 Aug 01 13:08	0°♄	
retrograde	2804 Apr 02 04:47	27°♄36'56		evening set	2809 Aug 16 14:34	9°♄30'00	
opposition	2804 May 09 08:17	19°♄31'37	0°32'51		2809 Sep 17 21:50	0°♄	
greatest brilliancy	2804 May 09 13:53	19°♄26'24	-1.7m	max. Earth dist.	2809 Sep 21 03:29	2°♄03'59	2.66738 AU
min. Earth dist.	2804 May 16 08:54	16°♄54'31	0.57708 AU				
desc. node	2804 May 22 04:59	14°♄51'09		conjunction	2809 Oct 01 00:18	8°♄23'16	0°50'47
direct	2804 Jun 18 20:21	9°♄52'59		minimum elong	2809 Oct 01 01:23	8°♄25'01	0°50'47
	2804 Aug 21 17:38	0°♄			2809 Nov 03 08:46	0°♄	
	2804 Oct 09 11:47	0°♄		morning rise	2809 Nov 14 09:28	7°♄14'31	
	2804 Nov 20 05:47	0°≈			2809 Dec 18 12:28	0°♄	
	2804 Dec 29 12:36	0°♄		desc. node	2810 Jan 12 02:48	16°♄45'10	
	2805 Feb 06 05:58	0°♄			2810 Jan 31 06:15	0°♄	
	2805 Mar 17 15:03	0°♄			2810 Mar 14 17:13	0°≈	
asc. node	2805 Mar 24 10:38	5°♄05'42			2810 Apr 25 05:16	0°♄	
	2805 Apr 27 11:19	0°♂			2810 Jun 05 13:25	0°♄	
evening set	2805 May 25 01:21	19°♂30'55			2810 Jul 18 15:27	0°♄	
	2805 Jun 09 05:26	0°♄			2810 Sep 09 05:27	0°♂	
				retrograde	2810 Oct 17 20:42	9°♂23'03	
conjunction	2805 Jul 17 14:00	25°♄49'21	0°58'39	asc. node	2810 Nov 14 07:28	4°♂09'53	
minimum elong	2805 Jul 17 12:39	25°♄47'07	0°58'38	min. Earth dist.	2810 Nov 15 02:41	3°♂53'29	0.46618 AU
	2805 Jul 23 21:53	0°♂		opposition	2810 Nov 23 08:27	0°♂58'22	0°30'51
max. Earth dist.	2805 Aug 05 17:47	8°♂24'12	2.62288 AU	greatest brilliancy	2810 Nov 23 01:47	1°♂04'16	-2.3m
morning rise	2805 Sep 04 06:41	27°♂28'35			2810 Nov 26 03:08	30°♄	
	2805 Sep 08 05:26	0°♄		direct	2810 Dec 26 06:42	24°♄09'22	
	2805 Oct 25 18:08	0°♄			2811 Jan 27 13:52	0°♂	
	2805 Dec 13 10:25	0°♄			2811 Apr 02 01:18	0°♄	
	2806 Feb 02 05:41	0°♄			2811 May 24 10:57	0°♂	
	2806 Apr 01 06:50	0°♄			2811 Jul 13 07:56	0°♄	
desc. node	2806 Apr 09 03:59	3°♄20'04			2811 Aug 30 14:18	0°♄	
retrograde	2806 May 27 16:11	14°♄44'13		evening set	2811 Sep 22 12:16	14°♄37'57	
opposition	2806 Jun 29 15:54	8°♄28'57	-4°-3'-15	max. Earth dist.	2811 Oct 15 16:36	29°♄44'18	2.60873 AU

	2811 Oct 16 02:08	0°♌		asc. node	2816 Jul 06 04:43	15°♊55'16	
					2816 Jul 26 04:30	0°♊	
conjunction	2811 Nov 07 16:35	15°♌03'48	0°12'46		2816 Sep 08 23:39	0°♊	
minimum elong	2811 Nov 07 17:03	15°♌04'34	0°12'46		2816 Oct 28 02:43	0°♐	
behind sun begin	2811 Nov 07 04:53	14°♌44'04			2816 Dec 28 13:54	0°♊	
behind sun end	2811 Nov 08 05:13	15°♌25'04		retrograde	2817 Feb 07 14:00	8°♊30'38	
	2811 Nov 29 14:23	0°♊			2817 Mar 17 01:48	30°♐♐	
desc. node	2811 Nov 30 01:18	0°♊18'49		opposition	2817 Mar 19 09:45	29°♐04'52	3°49'01
morning rise	2811 Dec 25 03:32	17°♊51'27		greatest brilliancy	2817 Mar 19 17:27	28°♐57'15	-1.2m
	2812 Jan 11 03:21	0°♊		min. Earth dist.	2817 Mar 21 07:59	28°♐19'11	0.67375 AU
	2812 Feb 20 23:45	0°♊		direct	2817 Apr 29 18:25	19°♐06'07	
	2812 Mar 31 14:50	0°♊			2817 Jun 16 05:11	0°♊	
	2812 May 09 17:14	0°♐		desc. node	2817 Jul 21 21:31	16°♊53'30	
	2812 Jun 18 06:08	0°♊			2817 Aug 14 03:35	0°♌	
	2812 Jul 29 15:58	0°♊			2817 Sep 30 08:12	0°♊	
	2812 Sep 13 23:09	0°♊			2817 Nov 11 19:57	0°♊	
asc. node	2812 Oct 01 07:28	9°♊38'00			2817 Dec 21 14:28	0°♊	
retrograde	2812 Nov 30 01:01	28°♊07'42			2818 Jan 28 22:23	0°♊	
min. Earth dist.	2813 Jan 02 18:19	20°♊33'53	0.59161 AU	evening set	2818 Feb 25 15:33	21°♊54'28	
greatest brilliancy	2813 Jan 07 10:06	18°♊43'49	-1.6m	greatest brilliancy	2818 Mar 05 14:39	28°♊11'11	1.2m
opposition	2813 Jan 08 13:20	18°♊16'56	3°52'57		2818 Mar 07 21:58	0°♐	
direct	2813 Feb 14 18:07	9°♊43'15			2818 Apr 15 12:22	0°♊	
	2813 Apr 24 20:05	0°♊					
	2813 Jun 20 18:10	0°♐		conjunction	2818 May 04 09:56	14°♊20'03	0°-13'-1
	2813 Aug 10 08:14	0°♊		minimum elong	2818 May 04 11:03	14°♊22'08	0°13'01
	2813 Sep 26 13:21	0°♌		behind sun begin	2818 May 03 18:44	13°♊51'30	
desc. node	2813 Oct 17 00:03	13°♌35'18		behind sun end	2818 May 05 03:22	14°♊52'44	
evening set	2813 Oct 31 14:25	23°♌31'17		asc. node	2818 May 24 04:42	29°♊01'27	
	2813 Nov 09 23:21	0°♊			2818 May 25 12:37	0°♊	
max. Earth dist.	2813 Nov 15 12:43	3°♊52'49	2.50162 AU	max. Earth dist.	2818 Jun 21 03:26	19°♊11'47	2.46879 AU
				morning rise	2818 Jul 05 23:39	29°♊37'48	
conjunction	2813 Dec 21 11:24	29°♊39'10	0°-37'-5		2818 Jul 06 12:24	0°♊	
minimum elong	2813 Dec 21 09:48	29°♊36'14	0°37'05		2818 Aug 19 19:28	0°♊	
	2813 Dec 21 22:46	0°♊			2818 Oct 05 15:53	0°♐	
	2814 Jan 31 00:03	0°♊			2818 Nov 24 23:40	0°♊	
morning rise	2814 Feb 16 10:19	12°♊37'11			2819 Jan 23 09:27	0°♌	
	2814 Mar 10 19:07	0°♊		retrograde	2819 Mar 17 07:27	12°♌57'11	
	2814 Apr 18 02:56	0°♐		opposition	2819 Apr 24 11:53	4°♌22'53	1°46'15
	2814 May 26 20:42	0°♊		greatest brilliancy	2819 Apr 25 00:55	4°♌10'25	-1.5m
	2814 Jul 05 23:18	0°♊		min. Earth dist.	2819 Apr 30 04:40	2°♌12'12	0.61630 AU
	2814 Aug 17 14:37	0°♊			2819 May 06 05:26	30°♐♊	
asc. node	2814 Aug 19 06:31	1°♊07'14		direct	2819 Jun 04 16:07	24°♊27'56	
	2814 Oct 03 20:45	0°♊		desc. node	2819 Jun 08 20:28	24°♊34'33	
	2814 Dec 05 19:42	0°♐			2819 Jul 06 01:41	0°♌	
retrograde	2815 Jan 05 02:59	5°♐11'26			2819 Sep 05 05:44	0°♊	
	2815 Feb 02 04:16	30°♐♊			2819 Oct 20 12:06	0°♊	
min. Earth dist.	2815 Feb 12 10:50	26°♊04'44	0.66528 AU		2819 Nov 30 05:42	0°♊	
opposition	2815 Feb 14 10:00	25°♊17'34	4°34'40		2820 Jan 08 00:58	0°♊	
greatest brilliancy	2815 Feb 13 23:08	25°♊28'26	-1.3m		2820 Feb 15 09:53	0°♐	
direct	2815 Mar 26 09:05	15°♊46'41			2820 Mar 25 10:57	0°♊	
	2815 May 21 13:20	0°♐		asc. node	2820 Apr 10 03:23	11°♊46'14	
	2815 Jul 19 11:41	0°♊		evening set	2820 May 03 11:27	28°♊55'12	
desc. node	2815 Sep 03 23:05	28°♊07'10			2820 May 04 23:13	0°♊	
	2815 Sep 06 21:50	0°♌			2820 Jun 16 09:52	0°♊	
	2815 Oct 21 21:44	0°♊					
	2815 Dec 02 19:02	0°♊		conjunction	2820 Jun 29 16:34	9°♊05'54	0°45'53
evening set	2815 Dec 20 20:11	13°♊28'27		minimum elong	2820 Jun 29 14:48	9°♊02'54	0°45'52
	2816 Jan 11 11:39	0°♊		max. Earth dist.	2820 Jul 26 03:28	26°♊51'48	2.58885 AU
max. Earth dist.	2816 Jan 25 00:28	10°♊29'58	2.37726 AU		2820 Jul 30 21:13	0°♊	
	2816 Feb 18 20:51	0°♊		morning rise	2820 Aug 20 01:34	13°♊12'37	
					2820 Sep 15 04:30	0°♐	
conjunction	2816 Feb 20 20:17	1°♊33'33	-1°-4'-23		2820 Nov 02 02:41	0°♊	
minimum elong	2816 Feb 20 21:00	1°♊34'59	1°04'24		2820 Dec 22 01:23	0°♌	
	2816 Mar 27 20:44	0°♐			2821 Feb 14 19:19	0°♊	
morning rise	2816 May 01 16:00	27°♐08'48		desc. node	2821 Apr 25 19:57	24°♊06'11	
	2816 May 05 09:01	0°♊		retrograde	2821 May 03 08:21	24°♊26'14	
	2816 Jun 14 05:40	0°♊		opposition	2821 Jun 07 05:50	17°♊21'22	-2°-1'-24

greatest brilliancy	2821 Jun 08 04:02	17°♂02'02	-2.1m	conjunction	2826 Oct 23 13:58	0°♂26'11	0°29'34
min. Earth dist.	2821 Jun 15 16:34	14°♂25'11	0.50113 AU	minimum elong	2826 Oct 23 14:52	0°♂27'40	0°29'34
direct	2821 Jul 15 16:03	8°♂39'23			2826 Dec 06 14:59	0°♂	
	2821 Sep 17 09:28	0°♂		morning rise	2826 Dec 08 07:24	1°♂09'16	
	2821 Nov 03 00:43	0°♂		desc. node	2826 Dec 16 16:38	6°♂55'45	
	2821 Dec 14 03:13	0°♂			2827 Jan 18 13:10	0°♂	
	2822 Jan 22 22:43	0°♂			2827 Feb 28 21:25	0°♂	
asc. node	2822 Feb 26 01:08	25°♂28'42			2827 Apr 10 01:27	0°♂	
	2822 Mar 04 04:24	0°♂			2827 May 19 17:16	0°♂	
	2822 Apr 14 18:31	0°♂			2827 Jun 28 23:25	0°♂	
	2822 May 28 03:25	0°♂			2827 Aug 10 20:27	0°♂	
evening set	2822 Jun 23 09:32	17°♂35'01			2827 Oct 02 04:53	0°♂	
	2822 Jul 12 06:24	0°♂		asc. node	2827 Oct 18 23:28	6°♂34'34	
				retrograde	2827 Nov 15 06:58	11°♂21'17	
conjunction	2822 Aug 11 18:42	19°♂46'33	1°08'03	min. Earth dist.	2827 Dec 16 21:32	4°♂33'15	0.54693 AU
minimum elong	2822 Aug 11 18:22	19°♂46'02	1°08'03	greatest brilliancy	2827 Dec 22 20:42	2°♂15'39	-1.9m
max. Earth dist.	2822 Aug 20 21:02	25°♂36'57	2.65957 AU	opposition	2827 Dec 24 00:15	1°♂49'05	3°00'45
	2822 Aug 27 17:28	0°♂			2827 Dec 28 20:07	30°♂	
morning rise	2822 Sep 26 17:02	19°♂05'17		direct	2828 Jan 28 17:31	23°♂49'17	
	2822 Oct 13 22:14	0°♂			2828 Mar 02 16:43	0°♂	
	2822 Nov 30 10:07	0°♂			2828 May 07 08:22	0°♂	
	2823 Jan 17 04:59	0°♂			2828 Jun 29 07:17	0°♂	
	2823 Mar 06 23:59	0°♂			2828 Aug 17 17:20	0°♂	
desc. node	2823 Mar 13 19:01	4°♂04'07			2828 Oct 03 13:44	0°♂	
	2823 Apr 28 11:25	0°♂		evening set	2828 Oct 15 06:12	7°♂44'19	
retrograde	2823 Jul 13 04:36	25°♂13'20		max. Earth dist.	2828 Nov 01 16:23	19°♂28'53	2.54866 AU
opposition	2823 Aug 12 10:30	20°♂10'46	-6°-41'-29	desc. node	2828 Nov 02 15:21	20°♂08'01	
greatest brilliancy	2823 Aug 13 15:54	19°♂50'47	-2.8m		2828 Nov 16 23:39	0°♂	
min. Earth dist.	2823 Aug 16 10:26	19°♂05'40	0.38323 AU				
direct	2823 Sep 12 15:32	14°♂41'52		conjunction	2828 Dec 02 16:15	10°♂59'30	0°-17'-29
	2823 Nov 03 14:37	0°♂		minimum elong	2828 Dec 02 15:30	10°♂58'11	0°17'30
	2823 Dec 23 23:13	0°♂			2828 Dec 29 03:34	0°♂	
asc. node	2824 Jan 14 00:58	13°♂56'10		morning rise	2829 Jan 23 20:06	18°♂58'47	
	2824 Feb 06 21:28	0°♂			2829 Feb 07 11:12	0°♂	
	2824 Mar 22 10:22	0°♂			2829 Mar 18 12:44	0°♂	
	2824 May 06 19:39	0°♂			2829 Apr 26 01:55	0°♂	
	2824 Jun 22 06:41	0°♂			2829 Jun 04 00:17	0°♂	
evening set	2824 Aug 02 01:55	25°♂57'41			2829 Jul 14 09:29	0°♂	
	2824 Aug 08 10:47	0°♂			2829 Aug 26 17:50	0°♂	
max. Earth dist.	2824 Sep 12 04:04	22°♂02'25	2.67591 AU	asc. node	2829 Sep 04 22:27	5°♂57'32	
					2829 Oct 15 18:34	0°♂	
conjunction	2824 Sep 16 23:41	25°♂06'28	1°00'15	retrograde	2829 Dec 22 13:37	21°♂43'09	
minimum elong	2824 Sep 17 00:36	25°♂07'55	1°00'15	min. Earth dist.	2830 Jan 28 06:12	13°♂08'44	0.64406 AU
	2824 Sep 24 15:49	0°♂		opposition	2830 Jan 31 17:40	11°♂45'22	4°31'05
morning rise	2824 Oct 31 04:48	23°♂28'18		greatest brilliancy	2830 Jan 30 23:12	12°♂03'49	-1.4m
	2824 Nov 10 06:22	0°♂		direct	2830 Mar 11 18:54	2°♂32'41	
	2824 Dec 25 21:06	0°♂			2830 Jun 04 02:31	0°♂	
desc. node	2825 Jan 28 17:54	22°♂44'51			2830 Jul 28 04:37	0°♂	
	2825 Feb 08 10:00	0°♂			2830 Sep 14 11:40	0°♂	
	2825 Mar 24 00:36	0°♂		desc. node	2830 Sep 20 14:26	3°♂58'52	
	2825 May 06 02:57	0°♂			2830 Oct 29 04:06	0°♂	
	2825 Jun 19 00:09	0°♂		evening set	2830 Nov 29 10:53	22°♂14'27	
	2825 Aug 07 23:41	0°♂			2830 Dec 10 01:20	0°♂	
retrograde	2825 Sep 25 23:30	14°♂14'41		max. Earth dist.	2830 Dec 16 03:27	4°♂30'10	2.42185 AU
min. Earth dist.	2825 Oct 22 14:52	9°♂30'31	0.41605 AU		2831 Jan 18 20:38	0°♂	
greatest brilliancy	2825 Oct 29 08:35	7°♂21'47	-2.6m				
opposition	2825 Oct 30 02:29	7°♂07'25	-2°00'-24	conjunction	2831 Jan 25 07:54	4°♂59'09	-1°-1'-2
direct	2825 Nov 30 05:01	1°♂14'29		minimum elong	2831 Jan 25 06:21	4°♂56'10	1°01'02
asc. node	2825 Dec 01 01:13	1°♂14'46			2831 Feb 26 09:04	0°♂	
	2826 Feb 19 23:05	0°♂		morning rise	2831 Apr 01 22:12	27°♂12'51	
	2826 Apr 13 06:19	0°♂			2831 Apr 05 11:13	0°♂	
	2826 Jun 01 21:57	0°♂			2831 May 14 00:27	0°♂	
	2826 Jul 20 16:13	0°♂			2831 Jun 22 21:35	0°♂	
	2826 Sep 06 11:47	0°♂		asc. node	2831 Jul 23 22:00	22°♂18'24	
evening set	2826 Sep 08 01:44	1°♂00'20			2831 Aug 03 23:02	0°♂	
max. Earth dist.	2826 Oct 05 17:49	18°♂46'43	2.63785 AU		2831 Sep 18 06:47	0°♂	
	2826 Oct 22 22:04	0°♂			2831 Nov 08 14:22	0°♂	

retrograde	2832 Jan 26 01:25	25° \mathbb{M} 51'15			2837 Apr 22 13:12	0° \mathbb{I}	
opposition	2832 Mar 06 05:04	16° \mathbb{M} 11'42	4°15'24		2837 Jun 04 10:52	0° \mathbb{S}	
greatest brilliancy	2832 Mar 06 06:12	16° \mathbb{M} 10'35	-1.2m	evening set	2837 Jun 05 05:21	0° \mathbb{S} 31'34	
min. Earth dist.	2832 Mar 06 14:59	16° \mathbb{M} 01'51	0.67850 AU		2837 Jul 19 05:45	0° \mathbb{Q}	
direct	2832 Apr 16 04:45	6° \mathbb{M} 20'36					
	2832 Jul 01 04:59	0° \mathbb{A}		conjunction	2837 Jul 27 01:53	5° \mathbb{Q} 08'23	1°03'31
desc. node	2832 Aug 07 13:55	20° \mathbb{A} 29'18		minimum elong	2837 Jul 27 00:54	5° \mathbb{Q} 06'46	1°03'30
	2832 Aug 23 08:40	0° \mathbb{M}		max. Earth dist.	2837 Aug 11 13:54	15° \mathbb{Q} 13'15	2.63810 AU
	2832 Oct 08 09:11	0° \mathbb{X}			2837 Sep 03 13:21	0° \mathbb{M}	
	2832 Nov 19 12:52	0° \mathbb{Z}		morning rise	2837 Sep 12 14:55	5° \mathbb{M} 47'02	
	2832 Dec 29 05:18	0° \approx			2837 Oct 20 22:04	0° \mathbb{A}	
evening set	2833 Jan 28 08:01	23° \approx 31'55			2837 Dec 08 01:58	0° \mathbb{M}	
	2833 Feb 05 12:43	0° \mathbb{X}			2838 Jan 26 12:07	0° \mathbb{X}	
	2833 Mar 15 11:23	0° \mathbb{Y}			2838 Mar 20 13:20	0° \mathbb{Z}	
				desc. node	2838 Mar 30 10:14	5° \mathbb{Z} 04'21	
conjunction	2833 Apr 06 13:54	17° \mathbb{Y} 18'44	0°-40'-19	retrograde	2838 Jun 12 03:44	28° \mathbb{Z} 18'46	
minimum elong	2833 Apr 06 17:07	17° \mathbb{Y} 25'00	0°40'18	opposition	2838 Jul 14 02:56	22° \mathbb{Z} 32'48	-5°-13'-16
	2833 Apr 22 23:52	0° \mathbb{X}		greatest brilliancy	2838 Jul 15 21:58	21° \mathbb{Z} 59'52	-2.5m
max. Earth dist.	2833 May 28 16:00	26° \mathbb{X} 52'57	2.41452 AU	min. Earth dist.	2838 Jul 21 11:19	20° \mathbb{Z} 18'51	0.42100 AU
	2833 Jun 01 21:32	0° \mathbb{I}		direct	2838 Aug 17 12:04	15° \mathbb{Z} 42'07	
asc. node	2833 Jun 09 20:02	5° \mathbb{I} 48'25			2838 Oct 05 22:31	0° \approx	
morning rise	2833 Jun 13 11:56	8° \mathbb{I} 28'00			2838 Nov 24 08:10	0° \mathbb{X}	
	2833 Jul 13 19:11	0° \mathbb{S}			2839 Jan 06 06:36	0° \mathbb{Y}	
	2833 Aug 27 03:50	0° \mathbb{Q}		asc. node	2839 Jan 30 17:35	17° \mathbb{Y} 26'54	
	2833 Oct 13 12:51	0° \mathbb{M}			2839 Feb 17 09:22	0° \mathbb{X}	
	2833 Dec 04 22:59	0° \mathbb{A}			2839 Apr 01 07:53	0° \mathbb{I}	
retrograde	2834 Mar 01 21:07	29° \mathbb{A} 17'51			2839 May 15 16:30	0° \mathbb{S}	
opposition	2834 Apr 09 20:55	20° \mathbb{A} 20'02	2°43'53		2839 Jun 30 11:48	0° \mathbb{Q}	
greatest brilliancy	2834 Apr 10 10:41	20° \mathbb{A} 06'39	-1.4m	evening set	2839 Jul 18 22:57	11° \mathbb{Q} 53'22	
min. Earth dist.	2834 Apr 14 03:03	18° \mathbb{A} 40'50	0.64669 AU		2839 Aug 16 07:07	0° \mathbb{M}	
direct	2834 May 21 08:35	10° \mathbb{A} 18'28					
desc. node	2834 Jun 25 12:10	16° \mathbb{A} 54'50		conjunction	2839 Sep 03 19:54	11° \mathbb{M} 47'45	1°06'18
	2834 Jul 26 02:34	0° \mathbb{M}		minimum elong	2839 Sep 03 20:27	11° \mathbb{M} 48'37	1°06'17
	2834 Sep 15 18:18	0° \mathbb{X}		max. Earth dist.	2839 Sep 04 04:07	12° \mathbb{M} 00'49	2.67596 AU
	2834 Oct 29 11:04	0° \mathbb{Z}			2839 Oct 02 10:23	0° \mathbb{A}	
	2834 Dec 08 15:43	0° \approx		morning rise	2839 Oct 18 08:45	10° \mathbb{A} 09'52	
	2835 Jan 16 04:22	0° \mathbb{X}			2839 Nov 18 06:54	0° \mathbb{M}	
	2835 Feb 23 07:46	0° \mathbb{Y}			2840 Jan 03 12:51	0° \mathbb{X}	
	2835 Apr 03 02:50	0° \mathbb{X}		desc. node	2840 Feb 15 09:12	28° \mathbb{X} 08'11	
evening set	2835 Apr 10 00:33	5° \mathbb{X} 14'16			2840 Feb 18 04:59	0° \mathbb{Z}	
asc. node	2835 Apr 27 19:30	18° \mathbb{X} 33'57			2840 Apr 03 15:17	0° \approx	
	2835 May 13 08:43	0° \mathbb{I}			2840 May 19 20:19	0° \mathbb{X}	
					2840 Jul 10 15:13	0° \mathbb{Y}	
conjunction	2835 Jun 10 16:25	20° \mathbb{I} 17'56	0°27'16	retrograde	2840 Aug 30 16:53	14° \mathbb{Y} 41'57	
minimum elong	2835 Jun 10 14:50	20° \mathbb{I} 15'09	0°27'15	min. Earth dist.	2840 Sep 26 17:52	10° \mathbb{Y} 15'26	0.38034 AU
	2835 Jun 24 13:23	0° \mathbb{S}		greatest brilliancy	2840 Sep 30 08:27	9° \mathbb{Y} 14'59	-2.8m
max. Earth dist.	2835 Jul 15 04:17	14° \mathbb{S} 08'06	2.54694 AU	opposition	2840 Oct 01 03:59	9° \mathbb{Y} 01'19	-4°-54'-25
morning rise	2835 Aug 04 15:39	27° \mathbb{S} 51'36		direct	2840 Oct 30 16:49	3° \mathbb{Y} 57'41	
	2835 Aug 07 21:12	0° \mathbb{Q}		asc. node	2840 Dec 17 16:38	16° \mathbb{Y} 25'37	
	2835 Sep 23 06:30	0° \mathbb{M}			2841 Jan 13 14:43	0° \mathbb{X}	
	2835 Nov 10 19:16	0° \mathbb{A}			2841 Mar 05 13:10	0° \mathbb{I}	
	2836 Jan 01 17:43	0° \mathbb{M}			2841 Apr 22 19:38	0° \mathbb{S}	
	2836 Mar 06 07:23	0° \mathbb{X}			2841 Jun 09 19:51	0° \mathbb{Q}	
retrograde	2836 Apr 12 17:08	7° \mathbb{X} 04'48			2841 Jul 27 19:23	0° \mathbb{M}	
desc. node	2836 May 12 10:38	1° \mathbb{X} 41'26		evening set	2841 Aug 24 19:27	17° \mathbb{M} 37'25	
	2836 May 17 06:25	30° \mathbb{X} \mathbb{M}			2841 Sep 13 07:25	0° \mathbb{A}	
opposition	2836 May 19 03:52	29° \mathbb{M} 18'42	0°-17'-53	max. Earth dist.	2841 Sep 26 10:44	8° \mathbb{A} 24'09	2.65898 AU
greatest brilliancy	2836 May 19 06:30	29° \mathbb{M} 16'18	-1.8m				
min. Earth dist.	2836 May 26 20:04	26° \mathbb{M} 30'29	0.55182 AU	conjunction	2841 Oct 09 03:13	16° \mathbb{A} 34'39	0°43'49
direct	2836 Jun 28 02:45	19° \mathbb{M} 55'02		minimum elong	2841 Oct 09 04:18	16° \mathbb{A} 36'24	0°43'48
	2836 Aug 09 11:07	0° \mathbb{X}			2841 Oct 29 17:58	0° \mathbb{M}	
	2836 Oct 02 07:10	0° \mathbb{Z}		morning rise	2841 Nov 22 20:12	15° \mathbb{M} 56'23	
	2836 Nov 14 03:19	0° \approx			2841 Dec 13 17:28	0° \mathbb{X}	
	2836 Dec 23 21:34	0° \mathbb{X}		desc. node	2842 Jan 02 07:36	13° \mathbb{X} 24'05	
	2837 Jan 31 21:53	0° \mathbb{Y}			2842 Jan 26 03:47	0° \mathbb{Z}	
	2837 Mar 12 12:18	0° \mathbb{X}			2842 Mar 09 04:03	0° \approx	
asc. node	2837 Mar 14 19:09	1° \mathbb{X} 42'10			2842 Apr 19 02:47	0° \mathbb{X}	

	2842 May 29 16:25	0°♄		direct	2847 Apr 03 11:21	23°♄38'54	
	2842 Jul 10 07:33	0°♄			2847 May 08 19:00	0°♄	
	2842 Aug 25 19:52	0°♄			2847 Jul 13 04:23	0°♄	
retrograde	2842 Oct 28 19:03	22°♄06'46		desc. node	2847 Aug 25 04:37	25°♄18'21	
asc. node	2842 Nov 04 16:29	21°♄45'40			2847 Sep 01 16:19	0°♄	
min. Earth dist.	2842 Nov 27 04:34	16°♄09'28	0.49559 AU		2847 Oct 17 00:26	0°♄	
greatest brilliancy	2842 Dec 04 11:27	13°♄28'48	-2.1m		2847 Nov 28 00:27	0°♄	
opposition	2842 Dec 05 06:08	13°♄11'35	1°36'53	evening set	2848 Jan 03 04:02	27°♄15'46	
direct	2843 Jan 08 05:20	5°♄54'56			2848 Jan 06 17:18	0°♄	
	2843 Mar 24 10:30	0°♄			2848 Feb 14 02:02	0°♄	
	2843 May 18 11:37	0°♄					
	2843 Jul 08 05:43	0°♄		conjunction	2848 Mar 07 23:28	18°♄06'01	0°-59'-48
	2843 Aug 25 20:53	0°♄		minimum elong	2848 Mar 08 01:50	18°♄10'41	0°59'48
evening set	2843 Sep 30 22:18	23°♄04'56			2848 Mar 23 01:15	0°♄	
	2843 Oct 11 11:50	0°♄		max. Earth dist.	2848 Mar 28 12:01	4°♄17'20	2.37112 AU
max. Earth dist.	2843 Oct 21 19:52	6°♄50'34	2.58923 AU		2848 Apr 30 12:50	0°♄	
				morning rise	2848 May 18 02:23	13°♄23'17	
conjunction	2843 Nov 16 17:27	24°♄19'39	0°02'06		2848 Jun 09 08:43	0°♄	
minimum elong	2843 Nov 16 17:33	24°♄19'50	0°02'06	asc. node	2848 Jun 26 13:25	12°♄31'36	
behind sun begin	2843 Nov 15 21:41	23°♄45'49			2848 Jul 21 05:27	0°♄	
behind sun end	2843 Nov 17 13:26	24°♄53'52			2848 Sep 03 18:14	0°♄	
desc. node	2843 Nov 20 07:16	26°♄46'51			2848 Oct 22 00:06	0°♄	
	2843 Nov 24 23:22	0°♄			2848 Dec 17 10:14	0°♄	
morning rise	2844 Jan 04 13:22	28°♄40'47		retrograde	2849 Feb 15 12:05	16°♄18'02	
	2844 Jan 06 09:11	0°♄		opposition	2849 Mar 27 02:20	7°♄01'13	3°28'20
	2844 Feb 16 00:42	0°♄		greatest brilliancy	2849 Mar 27 12:57	6°♄50'47	-1.3m
	2844 Mar 26 10:28	0°♄		min. Earth dist.	2849 Mar 29 21:01	5°♄55'41	0.66691 AU
	2844 May 04 07:15	0°♄			2849 Apr 15 21:56	30°♄	
	2844 Jun 12 13:17	0°♄		direct	2849 May 07 14:01	26°♄59'52	
	2844 Jul 23 10:52	0°♄			2849 May 30 18:13	0°♄	
	2844 Sep 06 04:38	0°♄		desc. node	2849 Jul 12 03:15	16°♄05'37	
asc. node	2844 Sep 21 14:31	9°♄16'39			2849 Aug 07 11:23	0°♄	
	2844 Nov 02 22:07	0°♄			2849 Sep 24 20:23	0°♄	
retrograde	2844 Dec 08 11:46	7°♄20'53			2849 Nov 06 17:11	0°♄	
	2845 Jan 10 18:55	30°♄			2849 Dec 16 14:55	0°♄	
min. Earth dist.	2845 Jan 12 07:55	29°♄23'48	0.61303 AU	greatest brilliancy	2849 Dec 23 09:17	5°♄13'40	1.2m
greatest brilliancy	2845 Jan 16 06:24	27°♄50'05	-1.5m		2850 Jan 24 00:17	0°♄	
opposition	2845 Jan 17 07:15	27°♄25'24	4°12'26		2850 Mar 03 00:49	0°♄	
direct	2845 Feb 24 05:28	18°♄36'03		evening set	2850 Mar 13 17:31	8°♄22'58	
	2845 Apr 14 04:18	0°♄			2850 Apr 10 16:11	0°♄	
	2845 Jun 14 14:46	0°♄		asc. node	2850 May 14 12:35	25°♄26'18	
	2845 Aug 05 05:13	0°♄					
	2845 Sep 21 19:07	0°♄		conjunction	2850 May 18 18:20	28°♄33'26	0°02'49
desc. node	2845 Oct 07 06:12	10°♄12'15		minimum elong	2850 May 18 18:08	28°♄33'04	0°02'49
	2845 Nov 05 07:44	0°♄		behind sun begin	2850 May 17 15:59	27°♄45'04	
evening set	2845 Nov 10 11:16	3°♄35'24		behind sun end	2850 May 19 20:18	29°♄21'01	
max. Earth dist.	2845 Nov 24 16:40	13°♄38'40	2.47383 AU		2850 May 20 17:35	0°♄	
	2845 Dec 17 06:54	0°♄		max. Earth dist.	2850 Jun 30 19:13	29°♄20'26	2.49809 AU
					2850 Jul 01 17:57	0°♄	
conjunction	2846 Jan 02 03:31	11°♄45'08	0°-47'-21	morning rise	2850 Jul 17 09:09	10°♄46'43	
minimum elong	2846 Jan 02 01:35	11°♄41'33	0°47'21		2850 Aug 14 23:47	0°♄	
	2846 Jan 26 06:11	0°♄			2850 Sep 30 13:57	0°♄	
morning rise	2846 Mar 03 09:56	28°♄01'01			2850 Nov 19 01:10	0°♄	
	2846 Mar 05 22:45	0°♄			2851 Jan 13 12:25	0°♄	
	2846 Apr 13 04:00	0°♄		retrograde	2851 Mar 26 16:52	21°♄38'46	
greatest brilliancy	2846 May 05 08:42	17°♄19'16	1.2m	opposition	2851 May 03 08:35	13°♄19'41	1°05'39
	2846 May 21 19:04	0°♄		greatest brilliancy	2851 May 03 18:18	13°♄10'31	-1.6m
	2846 Jun 30 18:11	0°♄		min. Earth dist.	2851 May 09 19:53	10°♄53'13	0.59579 AU
asc. node	2846 Aug 09 13:09	28°♄16'19		desc. node	2851 May 30 02:01	4°♄51'46	
	2846 Aug 12 01:42	0°♄		direct	2851 Jun 13 05:45	3°♄32'05	
	2846 Sep 27 07:58	0°♄			2851 Aug 28 08:28	0°♄	
	2846 Nov 22 07:10	0°♄			2851 Oct 14 09:14	0°♄	
retrograde	2847 Jan 12 18:40	13°♄07'55			2851 Nov 24 16:06	0°♄	
min. Earth dist.	2847 Feb 20 23:30	3°♄44'37	0.67293 AU		2852 Jan 02 17:37	0°♄	
opposition	2847 Feb 22 01:58	3°♄18'11	4°30'56		2852 Feb 10 06:35	0°♄	
greatest brilliancy	2847 Feb 21 19:33	3°♄24'35	-1.2m		2852 Mar 20 10:54	0°♄	
	2847 Mar 02 13:29	30°♄		asc. node	2852 Mar 31 10:42	8°♄14'22	

	2852 Apr 30 02:18	0°♄			2857 Mar 18 00:45	0°♁	
evening set	2852 May 16 00:39	11°♄23'59			2857 Apr 29 03:37	0°♂	
	2852 Jun 11 15:36	0°♄			2857 Jun 10 08:06	0°♂	
					2857 Jul 25 05:11	0°♂	
conjunction	2852 Jul 10 02:22	19°♄18'30	0°53'56	retrograde	2857 Oct 08 19:20	29°♂27'58	
minimum elong	2852 Jul 10 00:48	19°♄15'52	0°53'56	min. Earth dist.	2857 Nov 05 05:32	24°♂20'37	0.44283 AU
	2852 Jul 26 04:32	0°♄		opposition	2857 Nov 13 08:54	21°♂34'32	0°-28'-32
max. Earth dist.	2852 Aug 01 10:11	4°♄06'16	2.60870 AU	greatest brilliancy	2857 Nov 13 03:32	21°♂39'06	-2.5m
morning rise	2852 Aug 28 21:28	21°♄57'14		asc. node	2857 Nov 21 07:38	19°♂00'37	
	2852 Sep 10 10:44	0°♄		direct	2857 Dec 15 10:46	15°♂10'03	
	2852 Oct 28 02:28	0°♄			2858 Feb 08 04:56	0°♄	
	2852 Dec 16 05:41	0°♄			2858 Apr 06 08:30	0°♄	
	2853 Feb 06 08:31	0°♄			2858 May 27 09:34	0°♄	
	2853 Apr 12 18:37	0°♄			2858 Jul 15 18:07	0°♄	
desc. node	2853 Apr 16 00:47	1°♄00'25			2858 Sep 01 20:05	0°♄	
retrograde	2853 May 16 14:26	5°♄58'25		evening set	2858 Sep 16 06:56	9°♄12'16	
	2853 Jun 17 10:34	30°♄R♄		max. Earth dist.	2858 Oct 11 10:47	25°♄29'01	2.62280 AU
opposition	2853 Jun 19 10:45	29°♄19'58	-3°-9'-19		2858 Oct 18 08:03	0°♄	
greatest brilliancy	2853 Jun 20 19:50	28°♄52'09	-2.2m				
min. Earth dist.	2853 Jun 27 21:30	26°♄30'08	0.47192 AU	conjunction	2858 Nov 01 02:11	9°♄06'33	0°20'07
direct	2853 Jul 26 16:21	21°♄10'50		minimum elong	2858 Nov 01 02:51	9°♄07'40	0°20'06
	2853 Sep 02 17:14	0°♄			2858 Dec 01 23:16	0°♄	
	2853 Oct 25 19:54	0°♄		desc. node	2858 Dec 06 22:16	3°♄24'52	
	2853 Dec 07 10:07	0°♄		morning rise	2858 Dec 17 16:07	10°♄52'11	
	2854 Jan 16 23:11	0°♄			2859 Jan 13 17:18	0°♄	
asc. node	2854 Feb 16 10:04	22°♄30'15			2859 Feb 23 19:29	0°♄	
	2854 Feb 26 16:13	0°♄			2859 Apr 04 16:27	0°♄	
	2854 Apr 09 14:50	0°♄			2859 May 14 00:16	0°♄	
	2854 May 23 06:02	0°♄			2859 Jun 22 18:47	0°♄	
evening set	2854 Jul 03 00:10	27°♄01'47			2859 Aug 03 15:11	0°♄	
	2854 Jul 07 13:24	0°♄			2859 Sep 20 11:31	0°♄	
				asc. node	2859 Oct 09 07:14	9°♄31'57	
conjunction	2854 Aug 20 07:50	28°♄13'34	1°08'35	retrograde	2859 Nov 24 11:36	21°♄36'52	
minimum elong	2854 Aug 20 07:52	28°♄13'37	1°08'35	min. Earth dist.	2859 Dec 27 06:22	14°♄22'54	0.57255 AU
	2854 Aug 23 02:26	0°♄		greatest brilliancy	2860 Jan 01 11:54	12°♄20'28	-1.7m
max. Earth dist.	2854 Aug 26 04:54	1°♄58'52	2.66771 AU	opposition	2860 Jan 02 16:12	11°♄52'47	3°34'32
morning rise	2854 Oct 04 14:56	27°♄03'36		direct	2860 Feb 08 06:03	3°♄33'08	
	2854 Oct 09 06:03	0°♄			2860 Apr 29 16:34	0°♄	
	2854 Nov 25 11:20	0°♄			2860 Jun 23 16:45	0°♄	
	2855 Jan 11 14:19	0°♄			2860 Aug 12 19:01	0°♄	
	2855 Feb 27 23:10	0°♄			2860 Sep 28 21:28	0°♄	
desc. node	2855 Mar 04 00:53	2°♄33'21		desc. node	2860 Oct 23 21:13	16°♄39'03	
	2855 Apr 17 17:35	0°♄		evening set	2860 Oct 24 09:55	17°♄00'32	
	2855 Jun 12 07:08	0°♄		max. Earth dist.	2860 Nov 09 04:37	27°♄48'28	2.52337 AU
retrograde	2855 Jul 31 15:26	12°♄54'41			2860 Nov 12 08:34	0°♄	
opposition	2855 Aug 30 16:55	7°♄57'22	-6°-42'-46				
greatest brilliancy	2855 Aug 31 03:26	7°♄50'23	-2.9m	conjunction	2860 Dec 13 01:29	21°♄43'34	0°-28'-52
min. Earth dist.	2855 Aug 31 17:15	7°♄41'13	0.37311 AU	minimum elong	2860 Dec 13 00:14	21°♄41'18	0°28'52
direct	2855 Sep 29 17:41	2°♄56'21			2860 Dec 24 11:07	0°♄	
	2855 Dec 13 00:37	0°♄			2861 Feb 02 15:54	0°♄	
asc. node	2856 Jan 04 09:05	13°♄28'10		morning rise	2861 Feb 05 16:08	2°♄17'30	
	2856 Jan 30 08:30	0°♄			2861 Mar 13 14:11	0°♄	
	2856 Mar 16 07:31	0°♄			2861 Apr 21 00:20	0°♄	
	2856 May 01 11:16	0°♄			2861 May 29 19:19	0°♄	
	2856 Jun 17 08:58	0°♄			2861 Jul 08 23:15	0°♄	
	2856 Aug 03 18:45	0°♄			2861 Aug 20 18:47	0°♄	
evening set	2856 Aug 10 10:24	4°♄12'14		asc. node	2861 Aug 26 06:53	3°♄39'58	
max. Earth dist.	2856 Sep 17 09:08	28°♄16'43	2.67231 AU		2861 Oct 07 19:41	0°♄	
	2856 Sep 20 01:54	0°♄		retrograde	2861 Dec 30 09:40	29°♄59'01	
				min. Earth dist.	2862 Feb 06 00:43	21°♄06'02	0.65699 AU
conjunction	2856 Sep 24 23:57	3°♄08'31	0°55'08	opposition	2862 Feb 08 15:46	20°♄02'59	4°34'57
minimum elong	2856 Sep 25 00:59	3°♄10'10	0°55'07	greatest brilliancy	2862 Feb 08 01:29	20°♄17'16	-1.3m
	2856 Nov 05 14:54	0°♄		direct	2862 Mar 20 05:35	10°♄39'37	
morning rise	2856 Nov 08 05:52	1°♄42'44			2862 May 26 21:47	0°♄	
	2856 Dec 20 23:52	0°♄			2862 Jul 22 12:26	0°♄	
desc. node	2857 Jan 18 23:48	19°♄37'48			2862 Sep 09 11:55	0°♄	
	2857 Feb 03 02:20	0°♄		desc. node	2862 Sep 10 20:08	0°♄51'47	

	2862 Oct 24 09:54	0°♊		max. Earth dist.	2867 Jul 22 04:54	22°♊02'09	2.57097 AU
	2862 Dec 05 08:32	0°♋			2867 Aug 03 04:09	0°♌	
evening set	2862 Dec 11 04:23	4°♋18'34		morning rise	2867 Aug 14 04:14	7°♌14'27	
max. Earth dist.	2863 Jan 03 09:33	21°♋46'42	2.39504 AU		2867 Sep 18 10:55	0°♍	
	2863 Jan 14 03:05	0°♎			2867 Nov 05 13:47	0°♏	
					2867 Dec 26 04:53	0°♐	
conjunction	2863 Feb 08 19:51	19°♎58'33	-1°-4'-35		2868 Feb 21 15:48	0°♑	
minimum elong	2863 Feb 08 19:22	19°♎57'35	1°04'35	retrograde	2868 Apr 24 00:35	17°♑06'29	
	2863 Feb 21 14:01	0°♒		desc. node	2868 May 02 16:58	16°♑38'28	
	2863 Mar 31 14:45	0°♓		opposition	2868 May 29 15:25	9°♑42'09	-1°-14'-45
morning rise	2863 Apr 19 06:39	14°♓37'57		greatest brilliancy	2868 May 30 05:05	9°♑29'57	-1.9m
	2863 May 09 02:40	0°♈		min. Earth dist.	2868 Jun 06 19:35	6°♑47'10	0.52437 AU
	2863 Jun 17 22:16	0°♉		direct	2868 Jul 07 20:08	0°♑38'38	
asc. node	2863 Jul 14 05:15	19°♉01'24			2868 Sep 23 21:40	0°♒	
	2863 Jul 29 20:30	0°♊			2868 Nov 07 12:26	0°♋	
	2863 Sep 12 18:10	0°♌			2868 Dec 17 22:32	0°♍	
	2863 Nov 01 12:26	0°♎			2869 Jan 26 08:14	0°♏	
	2864 Jan 08 09:41	0°♐		asc. node	2869 Mar 05 01:40	28°♓23'34	
retrograde	2864 Feb 02 18:29	3°♐35'07			2869 Mar 07 05:39	0°♈	
	2864 Feb 26 08:20	30°♒♍			2869 Apr 17 12:22	0°♉	
opposition	2864 Mar 13 18:40	24°♒02'55	4°01'12		2869 May 30 14:54	0°♊	
greatest brilliancy	2864 Mar 13 23:39	23°♒57'59	-1.2m	evening set	2869 Jun 15 19:06	10°♊56'03	
min. Earth dist.	2864 Mar 15 01:06	23°♒32'46	0.67715 AU		2869 Jul 14 13:02	0°♋	
direct	2864 Apr 24 00:08	14°♒07'01					
	2864 Jun 22 09:10	0°♌		conjunction	2869 Aug 05 04:11	14°♌05'32	1°06'42
desc. node	2864 Jul 28 18:31	18°♌32'53		minimum elong	2869 Aug 05 03:35	14°♌04'34	1°06'43
	2864 Aug 17 11:16	0°♍		max. Earth dist.	2869 Aug 17 02:40	21°♌47'36	2.65107 AU
	2864 Oct 03 04:43	0°♎			2869 Aug 29 21:40	0°♍	
	2864 Nov 14 14:25	0°♏		morning rise	2869 Sep 20 17:48	13°♍54'59	
	2864 Dec 24 08:53	0°♐			2869 Oct 16 03:37	0°♎	
evening set	2865 Jan 31 16:55	0°♑			2869 Dec 02 21:38	0°♏	
	2865 Feb 13 02:03	9°♑47'23			2870 Jan 20 07:30	0°♑	
	2865 Mar 10 15:54	0°♒			2870 Mar 11 13:39	0°♒	
	2865 Apr 18 04:34	0°♓		desc. node	2870 Mar 20 15:59	5°♒11'05	
					2870 May 08 04:11	0°♓	
conjunction	2865 Apr 22 13:46	3°♓21'24	0°-25'-11	retrograde	2870 Jun 29 01:43	13°♓16'50	
minimum elong	2865 Apr 22 15:58	3°♓25'37	0°25'10	opposition	2870 Jul 30 00:06	7°♓58'03	-6°-12'-16
	2865 May 28 02:24	0°♉		greatest brilliancy	2870 Jul 31 15:25	7°♓29'59	-2.7m
asc. node	2865 May 31 04:41	2°♉16'12		min. Earth dist.	2870 Aug 04 21:01	6°♓18'01	0.39764 AU
max. Earth dist.	2865 Jun 12 06:36	11°♉02'58	2.44438 AU	direct	2870 Aug 31 13:46	1°♓55'00	
morning rise	2865 Jun 26 15:15	21°♉19'01			2870 Nov 13 18:47	0°♈	
	2865 Jul 08 23:45	0°♊			2870 Dec 29 14:35	0°♉	
	2865 Aug 22 05:38	0°♌		asc. node	2871 Jan 21 01:01	15°♓28'01	
	2865 Oct 08 05:03	0°♎			2871 Feb 11 00:07	0°♏	
	2865 Nov 28 04:38	0°♐			2871 Mar 26 16:32	0°♑	
	2866 Jan 30 22:56	0°♒			2871 May 10 12:56	0°♒	
retrograde	2866 Mar 10 12:47	7°♒29'14			2871 Jun 25 15:42	0°♓	
	2866 Apr 14 19:16	30°♒♌		evening set	2871 Jul 27 16:59	20°♓30'04	
opposition	2866 Apr 18 02:55	28°♓43'57	2°11'56		2871 Aug 11 15:18	0°♈	
greatest brilliancy	2866 Apr 18 16:47	28°♓30'36	-1.4m	max. Earth dist.	2871 Sep 09 08:58	18°♈15'35	2.67707 AU
min. Earth dist.	2866 Apr 23 04:52	26°♓46'31	0.63102 AU				
direct	2866 May 29 11:47	18°♓45'00		conjunction	2871 Sep 11 23:21	19°♈54'46	1°03'11
desc. node	2866 Jun 15 17:16	20°♓31'17		minimum elong	2871 Sep 12 00:08	19°♈56'02	1°03'11
	2866 Jul 15 10:02	0°♉			2871 Sep 27 19:33	0°♊	
	2866 Sep 09 06:35	0°♋		morning rise	2871 Oct 26 06:23	18°♊12'48	
	2866 Oct 23 20:30	0°♍			2871 Nov 13 12:52	0°♌	
	2866 Dec 03 08:55	0°♎			2871 Dec 29 10:26	0°♎	
	2867 Jan 11 01:25	0°♏		desc. node	2872 Feb 05 14:43	25°♏24'30	
	2867 Feb 18 07:39	0°♐			2872 Feb 12 10:51	0°♑	
	2867 Mar 29 05:10	0°♒			2872 Mar 27 18:36	0°♓	
asc. node	2867 Apr 18 03:55	14°♒59'48			2872 May 10 23:15	0°♈	
evening set	2867 Apr 24 04:49	19°♒28'27			2872 Jun 25 23:09	0°♉	
	2867 May 08 13:20	0°♉			2872 Aug 27 23:03	0°♊	
	2867 Jun 19 19:55	0°♊		retrograde	2872 Sep 15 02:55	2°♒15'02	
					2872 Oct 03 02:59	30°♒♓	
conjunction	2867 Jun 22 07:45	1°♓43'29	0°38'41	min. Earth dist.	2872 Oct 11 14:16	27°♓43'46	0.39734 AU
minimum elong	2867 Jun 22 05:57	1°♓40'22	0°38'40	greatest brilliancy	2872 Oct 17 02:12	26°♓04'47	-2.7m

opposition	2872 Oct 18 00:31	25° Υ 47'54	-3°-16'-38		2877 Oct 31 14:45	0° \mathcal{Z}	
direct	2872 Nov 17 08:34	20° Υ 19'42		evening set	2877 Nov 20 23:52	14° \mathcal{Z} 21'06	
asc. node	2872 Dec 08 01:20	22° Υ 59'58		max. Earth dist.	2877 Dec 05 19:05	25° \mathcal{Z} 01'53	2.44502 AU
	2872 Dec 29 03:58	0° \mathcal{B}			2877 Dec 12 14:05	0° \mathcal{Z}	
	2873 Feb 25 14:04	0° Π					
	2873 Apr 16 18:23	0° \mathcal{S}		conjunction	2878 Jan 14 20:20	24° \mathcal{Z} 54'43	0°-56'-5
	2873 Jun 04 14:26	0° Ω		minimum elong	2878 Jan 14 18:26	24° \mathcal{Z} 51'06	0°56'06
	2873 Jul 22 23:52	0° \mathcal{M}			2878 Jan 21 12:05	0° \approx	
evening set	2873 Sep 01 23:48	25° \mathcal{M} 44'59			2878 Mar 01 02:45	0° \mathcal{H}	
	2873 Sep 08 16:27	0° \mathcal{L}		greatest brilliancy	2878 Mar 05 01:00	3° \mathcal{H} 04'59	1.2m
max. Earth dist.	2873 Oct 01 21:23	14° \mathcal{L} 51'57	2.64838 AU	morning rise	2878 Mar 19 15:59	14° \mathcal{H} 35'06	
					2878 Apr 08 06:19	0° Υ	
conjunction	2873 Oct 17 08:20	24° \mathcal{L} 53'48	0°35'51		2878 May 16 19:47	0° \mathcal{B}	
minimum elong	2873 Oct 17 09:20	24° \mathcal{L} 55'26	0°35'50		2878 Jun 25 16:27	0° Π	
	2873 Oct 25 03:29	0° \mathcal{M}		asc. node	2878 Jul 30 22:21	25° Π 15'34	
morning rise	2873 Dec 01 12:44	24° \mathcal{M} 55'14			2878 Aug 06 18:33	0° \mathcal{S}	
	2873 Dec 09 00:08	0° \mathcal{Z}			2878 Sep 21 07:55	0° Ω	
desc. node	2873 Dec 23 13:20	9° \mathcal{Z} 58'57			2878 Nov 12 22:37	0° \mathcal{M}	
	2874 Jan 21 04:19	0° \mathcal{Z}		retrograde	2879 Jan 20 09:32	20° \mathcal{M} 55'04	
	2874 Mar 03 19:58	0° \approx		opposition	2879 Mar 01 15:21	11° \mathcal{M} 10'38	4°23'12
	2874 Apr 13 07:54	0° \mathcal{H}		min. Earth dist.	2879 Mar 01 09:25	11° \mathcal{M} 16'34	0.67725 AU
	2874 May 23 08:12	0° Υ		greatest brilliancy	2879 Mar 01 13:16	11° \mathcal{M} 12'43	-1.2m
	2874 Jul 03 01:08	0° \mathcal{B}		direct	2879 Apr 11 09:05	1° \mathcal{M} 24'12	
	2874 Aug 15 23:03	0° Π			2879 Jul 06 07:33	0° \mathcal{L}	
	2874 Oct 14 21:35	0° \mathcal{S}		desc. node	2879 Aug 15 10:22	22° \mathcal{L} 43'56	
asc. node	2874 Oct 25 23:46	2° \mathcal{S} 39'47			2879 Aug 27 06:48	0° \mathcal{M}	
retrograde	2874 Nov 08 00:38	3° \mathcal{S} 50'42			2879 Oct 12 01:28	0° \mathcal{Z}	
	2874 Dec 01 04:19	30° \mathcal{R} Π			2879 Nov 23 04:46	0° \mathcal{Z}	
min. Earth dist.	2874 Dec 08 15:03	27° Π 25'07	0.52457 AU		2880 Jan 01 22:12	0° \approx	
greatest brilliancy	2874 Dec 15 04:28	24° Π 56'31	-2.0m	evening set	2880 Jan 17 14:00	12° \approx 09'58	
opposition	2874 Dec 16 05:51	24° Π 32'29	2°29'51		2880 Feb 09 06:25	0° \mathcal{H}	
direct	2875 Jan 20 05:45	16° Π 50'37			2880 Mar 18 05:09	0° Υ	
	2875 Mar 13 10:02	0° \mathcal{S}					
	2875 May 12 01:05	0° Ω		conjunction	2880 Mar 24 17:09	5° Υ 06'56	0°-50'-15
	2875 Jul 02 23:17	0° \mathcal{M}		minimum elong	2880 Mar 24 20:28	5° Υ 13'27	0°50'13
	2875 Aug 21 01:31	0° \mathcal{L}			2880 Apr 25 16:35	0° \mathcal{B}	
	2875 Oct 06 20:29	0° \mathcal{M}		max. Earth dist.	2880 May 11 16:10	12° \mathcal{B} 11'40	2.39171 AU
evening set	2875 Oct 09 14:09	1° \mathcal{M} 48'01		morning rise	2880 Jun 02 12:19	28° \mathcal{B} 31'33	
max. Earth dist.	2875 Oct 28 10:58	14° \mathcal{M} 22'31	2.56775 AU		2880 Jun 04 12:17	0° Π	
desc. node	2875 Nov 10 12:22	23° \mathcal{M} 14'12		asc. node	2880 Jun 16 20:25	9° Π 01'07	
	2875 Nov 20 08:20	0° \mathcal{Z}			2880 Jul 16 08:07	0° \mathcal{S}	
					2880 Aug 29 16:30	0° Ω	
conjunction	2875 Nov 26 04:25	4° \mathcal{Z} 03'09	0°-9'-8		2880 Oct 16 07:19	0° \mathcal{M}	
minimum elong	2875 Nov 26 04:02	4° \mathcal{Z} 02'29	0°09'09		2880 Dec 08 22:08	0° \mathcal{L}	
behind sun begin	2875 Nov 25 10:48	3° \mathcal{Z} 32'30		retrograde	2881 Feb 23 14:46	24° \mathcal{L} 09'03	
behind sun end	2875 Nov 26 21:17	4° \mathcal{Z} 32'31		opposition	2881 Apr 03 21:59	15° \mathcal{L} 02'22	3°03'44
	2876 Jan 01 15:58	0° \mathcal{Z}		greatest brilliancy	2881 Apr 04 10:41	14° \mathcal{L} 49'57	-1.3m
morning rise	2876 Jan 15 16:25	10° \mathcal{Z} 15'05		min. Earth dist.	2881 Apr 07 12:45	13° \mathcal{L} 37'37	0.65703 AU
	2876 Feb 11 03:55	0° \approx		direct	2881 May 15 10:44	5° \mathcal{L} 00'03	
	2876 Mar 21 09:21	0° \mathcal{H}		desc. node	2881 Jul 02 09:08	16° \mathcal{L} 21'18	
	2876 Apr 29 01:44	0° Υ			2881 Jul 31 00:05	0° \mathcal{M}	
	2876 Jun 07 02:30	0° \mathcal{B}			2881 Sep 19 03:11	0° \mathcal{Z}	
	2876 Jul 17 14:52	0° Π			2881 Nov 01 12:03	0° \mathcal{Z}	
	2876 Aug 30 08:40	0° \mathcal{S}			2881 Dec 11 14:21	0° \approx	
asc. node	2876 Sep 11 22:20	7° \mathcal{S} 57'54			2882 Jan 19 01:35	0° \mathcal{H}	
	2876 Oct 21 07:27	0° Ω			2882 Feb 26 03:18	0° Υ	
retrograde	2876 Dec 16 16:07	16° Ω 09'56		evening set	2882 Mar 29 10:22	24° Υ 20'06	
min. Earth dist.	2877 Jan 21 13:31	7° Ω 51'15	0.63137 AU		2882 Apr 05 19:48	0° \mathcal{B}	
opposition	2877 Jan 25 16:44	6° Ω 12'18	4°25'34	asc. node	2882 May 04 19:20	21° \mathcal{B} 48'35	
greatest brilliancy	2877 Jan 24 19:13	6° Ω 33'48	-1.4m		2882 May 15 22:19	0° Π	
	2877 Feb 12 08:16	30° \mathcal{R} \mathcal{S}					
direct	2877 Mar 05 06:17	27° \mathcal{S} 09'13		conjunction	2882 Jun 01 03:46	11° Π 45'11	0°17'30
	2877 Mar 27 21:50	0° Ω		minimum elong	2882 Jun 01 02:36	11° Π 43'05	0°17'29
	2877 Jun 07 12:44	0° \mathcal{M}			2882 Jun 26 23:42	0° \mathcal{S}	
	2877 Jul 30 22:04	0° \mathcal{L}		max. Earth dist.	2882 Jul 09 08:55	8° \mathcal{S} 33'13	2.52592 AU
	2877 Sep 16 22:41	0° \mathcal{M}		morning rise	2882 Jul 28 01:30	21° \mathcal{S} 13'59	
desc. node	2877 Sep 27 11:07	6° \mathcal{M} 52'56			2882 Aug 10 05:03	0° Ω	

	2882 Sep 25 14:56	0°♎			2887 Nov 25 17:31	0°♑		
	2882 Nov 13 10:50	0°♏		asc. node	2887 Dec 25 16:39	14°♑31'42		
	2883 Jan 05 12:31	0°♎			2888 Jan 21 12:20	0°♏		
	2883 Mar 25 14:00	0°♏			2888 Mar 09 16:51	0°♐		
retrograde	2883 Apr 05 16:27	0°♏43'02			2888 Apr 25 21:18	0°♑		
	2883 Apr 16 10:04	30°♎			2888 Jun 12 08:10	0°♏		
opposition	2883 May 12 16:55	22°♎41'22	0°19'33		2888 Jul 30 01:07	0°♎		
greatest brilliancy	2883 May 12 14:57	22°♎43'12	-1.7m	evening set	2888 Aug 18 16:49	12°♎23'21		
min. Earth dist.	2883 May 19 20:58	20°♎01'36	0.57254 AU		2888 Sep 15 11:05	0°♏		
desc. node	2883 May 20 07:36	19°♎51'55		max. Earth dist.	2888 Sep 22 15:48	4°♏35'45	2.66597 AU	
direct	2883 Jun 22 03:27	13°♎05'01						
	2883 Aug 18 15:34	0°♏		conjunction	2888 Oct 03 01:47	11°♏16'35	0°48'54	
	2883 Oct 07 17:35	0°♏		minimum elong	2888 Oct 03 02:53	11°♏18'20	0°48'52	
	2883 Nov 18 20:14	0°♏			2888 Oct 31 23:05	0°♎		
	2883 Dec 28 06:28	0°♏		morning rise	2888 Nov 16 12:18	10°♎13'07		
	2884 Feb 05 00:58	0°♑			2888 Dec 16 03:25	0°♏		
	2884 Mar 15 09:43	0°♏		desc. node	2889 Jan 09 04:28	16°♏22'12		
asc. node	2884 Mar 21 19:13	4°♏47'12			2889 Jan 28 21:11	0°♏		
	2884 Apr 25 04:47	0°♐			2889 Mar 12 07:17	0°♏		
evening set	2884 May 27 18:49	23°♐01'34			2889 Apr 22 17:22	0°♏		
	2884 Jun 06 21:15	0°♑			2889 Jun 02 21:15	0°♑		
					2889 Jul 15 11:58	0°♏		
conjunction	2884 Jul 19 23:26	28°♑59'40	1°00'07		2889 Sep 03 14:04	0°♐		
minimum elong	2884 Jul 19 22:10	28°♑57'34	1°00'08	retrograde	2889 Oct 20 11:55	13°♐12'07		
	2884 Jul 21 12:02	0°♏		asc. node	2889 Nov 11 16:29	9°♐40'28		
max. Earth dist.	2884 Aug 07 11:17	11°♏06'52	2.62598 AU	min. Earth dist.	2889 Nov 17 22:17	7°♐38'18	0.47173 AU	
	2884 Sep 05 18:00	0°♎		opposition	2889 Nov 26 04:55	4°♐41'22	0°48'52	
morning rise	2884 Sep 06 10:28	0°♎26'20		greatest brilliancy	2889 Nov 25 18:36	4°♐50'34	-2.3m	
	2884 Oct 23 04:50	0°♏			2889 Dec 11 06:29	30°♎		
	2884 Dec 10 17:18	0°♎		direct	2889 Dec 29 08:15	27°♏47'05		
	2885 Jan 30 02:29	0°♏			2890 Jan 17 12:38	0°♐		
	2885 Mar 27 08:58	0°♏			2890 Mar 29 14:02	0°♑		
desc. node	2885 Apr 06 06:54	4°♏29'16			2890 May 21 14:40	0°♏		
retrograde	2885 May 30 23:42	18°♏32'36			2890 Jul 10 17:17	0°♎		
opposition	2885 Jul 02 19:30	12°♏22'46	-4°-20'-9		2890 Aug 28 03:02	0°♏		
greatest brilliancy	2885 Jul 04 12:22	11°♏49'57	-2.4m	evening set	2890 Sep 24 14:19	17°♏31'56		
min. Earth dist.	2885 Jul 10 21:06	9°♏48'30	0.44298 AU		2890 Oct 13 17:26	0°♎		
direct	2885 Aug 07 12:51	4°♏54'36		max. Earth dist.	2890 Oct 17 08:31	2°♎23'24	2.60515 AU	
	2885 Oct 15 13:14	0°♏						
	2885 Nov 29 21:26	0°♏		conjunction	2890 Nov 09 21:06	18°♎06'09	0°09'55	
	2886 Jan 10 12:46	0°♑		minimum elong	2890 Nov 09 21:28	18°♎06'45	0°09'54	
asc. node	2886 Feb 06 18:00	19°♑47'12		behind sun begin	2890 Nov 09 05:40	17°♎40'05		
	2886 Feb 20 21:49	0°♏		behind sun end	2890 Nov 10 13:15	18°♎33'27		
	2886 Apr 04 07:27	0°♐		desc. node	2890 Nov 27 04:04	29°♎53'50		
	2886 May 18 06:42	0°♑			2890 Nov 27 07:39	0°♏		
	2886 Jul 02 19:18	0°♏		morning rise	2890 Dec 27 14:15	21°♏11'07		
evening set	2886 Jul 12 06:10	6°♏07'23			2891 Jan 08 21:52	0°♏		
	2886 Aug 18 11:05	0°♎			2891 Feb 18 18:46	0°♏		
					2891 Mar 30 09:36	0°♏		
conjunction	2886 Aug 28 16:49	6°♎31'46	1°07'43		2891 May 08 10:53	0°♑		
minimum elong	2886 Aug 28 17:11	6°♎32'20	1°07'43		2891 Jun 16 21:15	0°♏		
max. Earth dist.	2886 Aug 31 11:51	8°♎18'29	2.67326 AU		2891 Jul 28 01:29	0°♐		
	2886 Oct 04 14:08	0°♏			2891 Sep 11 16:27	0°♑		
morning rise	2886 Oct 12 12:16	5°♏02'32		asc. node	2891 Sep 29 14:56	10°♑15'46		
	2886 Nov 20 14:20	0°♎			2891 Nov 19 11:40	0°♏		
	2887 Jan 06 05:15	0°♏		retrograde	2891 Dec 03 05:20	1°♏14'29		
	2887 Feb 21 13:26	0°♏			2891 Dec 16 10:39	30°♎		
desc. node	2887 Feb 22 06:05	0°♏26'56		min. Earth dist.	2892 Jan 06 04:01	23°♑35'36	0.59607 AU	
	2887 Apr 09 04:24	0°♏		opposition	2892 Jan 11 18:35	21°♑22'47	3°59'25	
	2887 May 27 22:41	0°♏		greatest brilliancy	2892 Jan 10 15:39	21°♑49'26	-1.6m	
	2887 Aug 04 21:17	0°♑		direct	2892 Feb 18 02:54	12°♑45'45		
retrograde	2887 Aug 18 13:28	1°♑13'17			2892 Apr 20 15:28	0°♏		
	2887 Sep 01 07:51	30°♎			2892 Jun 17 19:17	0°♎		
min. Earth dist.	2887 Sep 15 23:19	26°♏35'28	0.37292 AU		2892 Aug 07 18:06	0°♏		
opposition	2887 Sep 18 03:15	26°♏00'38	-5°-56'-37		2892 Sep 24 04:03	0°♎		
greatest brilliancy	2887 Sep 17 18:20	26°♏06'37	-2.9m	desc. node	2892 Oct 14 03:20	13°♎13'21		
direct	2887 Oct 17 12:33	21°♏06'37		evening set	2892 Nov 02 21:48	26°♎40'07		

	2892 Nov 07 17:25	0°♊			2897 May 23 07:51	0°♈		
max. Earth dist.	2892 Nov 17 11:50	6°♊49'17	2.49657 AU	max. Earth dist.	2897 Jun 23 10:19	22°♈25'04	2.47443 AU	
	2892 Dec 19 19:09	0°♈			2897 Jul 04 05:25	0°♈		
				morning rise	2897 Jul 08 18:17	3°♈09'20		
conjunction	2892 Dec 24 02:21	3°♈09'16	0°-39'-47		2897 Aug 17 09:33	0°♈		
minimum elong	2892 Dec 24 00:39	3°♈06'09	0°39'47		2897 Oct 03 01:38	0°♈		
	2893 Jan 28 21:42	0°♈			2897 Nov 22 00:14	0°♈		
morning rise	2893 Feb 19 16:00	16°♈44'19			2898 Jan 18 18:25	0°♈		
	2893 Mar 08 17:01	0°♈		retrograde	2898 Mar 19 13:32	15°♈54'28		
	2893 Apr 16 00:09	0°♈		opposition	2898 Apr 26 16:01	7°♈23'01	1°35'14	
	2893 May 24 16:12	0°♈		greatest brilliancy	2898 Apr 27 04:13	7°♈11'22	-1.5m	
	2893 Jul 03 15:51	0°♈		min. Earth dist.	2898 May 02 13:01	5°♈08'38	0.61276 AU	
	2893 Aug 15 01:59	0°♈			2898 May 18 05:34	30°♈		
asc. node	2893 Aug 16 13:24	1°♈00'04		desc. node	2898 Jun 05 23:05	27°♈29'10		
	2893 Sep 30 20:07	0°♈		direct	2898 Jun 06 19:42	27°♈28'53		
	2893 Nov 29 09:54	0°♈			2898 Jun 27 08:41	0°♈		
retrograde	2894 Jan 07 02:58	8°♈03'00			2898 Sep 02 03:37	0°♈		
	2894 Feb 11 19:40	30°♈			2898 Oct 18 00:24	0°♈		
min. Earth dist.	2894 Feb 14 15:49	28°♈52'19	0.66714 AU		2898 Nov 27 23:23	0°♈		
opposition	2894 Feb 16 10:09	28°♈09'58	4°34'10		2899 Jan 05 20:46	0°♈		
greatest brilliancy	2894 Feb 16 00:17	28°♈19'50	-1.3m		2899 Feb 13 06:06	0°♈		
direct	2894 Mar 28 11:07	18°♈37'10			2899 Mar 24 06:28	0°♈		
	2894 May 16 17:36	0°♈		asc. node	2899 Apr 08 11:03	11°♈25'05		
	2894 Jul 16 12:17	0°♈			2899 May 03 17:17	0°♈		
desc. node	2894 Sep 01 01:36	27°♈54'10		evening set	2899 May 07 11:14	2°♈42'47		
	2894 Sep 04 09:03	0°♈			2899 Jun 15 02:11	0°♈		
	2894 Oct 19 14:17	0°♈						
	2894 Nov 30 14:56	0°♈		conjunction	2899 Jul 03 06:02	12°♈26'03	0°48'12	
evening set	2894 Dec 23 17:51	17°♈16'30		minimum elong	2899 Jul 03 04:16	12°♈23'04	0°48'11	
	2895 Jan 09 09:33	0°♈		max. Earth dist.	2899 Jul 28 18:54	29°♈32'18	2.59280 AU	
max. Earth dist.	2895 Feb 02 07:53	18°♈36'26	2.37423 AU		2899 Jul 29 11:39	0°♈		
	2895 Feb 16 19:37	0°♈		morning rise	2899 Aug 23 07:12	16°♈14'30		
					2899 Sep 13 16:52	0°♈		
conjunction	2895 Feb 24 07:18	5°♈54'31	-1°-3'-46		2899 Oct 31 11:55	0°♈		
minimum elong	2895 Feb 24 08:24	5°♈56'42	1°03'47		2899 Dec 20 03:47	0°♈		
	2895 Mar 26 19:19	0°♈			2900 Feb 11 23:21	0°♈		
	2895 May 04 06:22	0°♈		desc. node	2900 Apr 23 21:43	26°♈51'58		
morning rise	2895 May 06 08:50	1°♈36'59		retrograde	2900 May 07 08:19	27°♈54'20		
	2895 Jun 13 00:48	0°♈		opposition	2900 Jun 11 00:17	20°♈54'13	-2°-18'-2	
asc. node	2895 Jul 04 13:39	15°♈39'49		greatest brilliancy	2900 Jun 12 01:19	20°♈32'30	-2.1m	
	2895 Jul 24 20:23	0°♈		min. Earth dist.	2900 Jun 19 10:19	17°♈59'20	0.49575 AU	
	2895 Sep 07 10:28	0°♈		direct	2900 Jul 19 04:59	12°♈17'32		
	2895 Oct 26 02:55	0°♈			2900 Sep 14 04:34	0°♈		
	2895 Dec 24 06:36	0°♈			2900 Nov 01 04:23	0°♈		
retrograde	2896 Feb 10 14:04	11°♈19'16			2900 Dec 12 15:33	0°♈		
opposition	2896 Mar 21 09:27	1°♈55'11	3°43'14		2901 Jan 21 14:13	0°♈		
greatest brilliancy	2896 Mar 21 17:48	1°♈46'56	-1.2m	asc. node	2901 Feb 24 10:23	25°♈15'38		
min. Earth dist.	2896 Mar 23 12:23	1°♈04'55	0.67282 AU		2901 Mar 02 20:45	0°♈		
	2896 Mar 26 06:38	30°♈			2901 Apr 13 10:27	0°♈		
direct	2896 May 01 18:58	21°♈55'31			2901 May 26 18:24	0°♈		
	2896 Jun 10 18:09	0°♈		evening set	2901 Jun 26 18:46	20°♈45'05		
desc. node	2896 Jul 19 00:05	17°♈10'58			2901 Jul 10 20:20	0°♈		
	2896 Aug 11 04:27	0°♈						
	2896 Sep 27 20:52	0°♈		conjunction	2901 Aug 14 22:30	22°♈44'02	1°08'19	
	2896 Nov 09 13:51	0°♈		minimum elong	2901 Aug 14 22:16	22°♈43'40	1°08'20	
	2896 Dec 19 11:04	0°♈		max. Earth dist.	2901 Aug 23 13:03	28°♈15'08	2.66129 AU	
	2897 Jan 26 20:06	0°♈			2901 Aug 26 06:37	0°♈		
greatest brilliancy	2897 Feb 23 15:49	21°♈59'18	1.2m	morning rise	2901 Sep 29 17:38	21°♈56'31		
evening set	2897 Mar 01 04:56	26°♈21'53			2901 Oct 12 10:37	0°♈		
	2897 Mar 05 19:42	0°♈			2901 Nov 28 20:58	0°♈		
	2897 Apr 13 09:13	0°♈			2902 Jan 15 12:03	0°♈		
					2902 Mar 04 21:49	0°♈		
conjunction	2897 May 07 17:53	18°♈27'05	0°-9'-6	desc. node	2902 Mar 11 21:20	4°♈14'01		
minimum elong	2897 May 07 18:40	18°♈28'32	0°09'07		2902 Apr 25 05:07	0°♈		
behind sun begin	2897 May 06 19:43	17°♈45'40		retrograde	2902 Jul 18 07:03	29°♈54'07		
behind sun end	2897 May 08 17:36	19°♈11'22		opposition	2902 Aug 17 10:34	24°♈53'47	-6°-45'-19	
asc. node	2897 May 21 12:53	28°♈41'01		greatest brilliancy	2902 Aug 18 12:52	24°♈35'59	-2.8m	

min. Earth dist.	2902 Aug 20 21:25	23° \approx 57'44	0.38058 AU		2907 Nov 16 16:56	0° \approx	
direct	2902 Sep 17 10:42	19° \approx 31'28					
	2902 Oct 29 07:51	0° \mathbb{H}		conjunction	2907 Dec 07 02:32	14° \approx 17'59	0°-20'-30
	2902 Dec 21 12:40	0° \mathbb{Y}		minimum elong	2907 Dec 07 01:39	14° \approx 16'26	0°20'31
asc. node	2903 Jan 12 09:28	14° \mathbb{Y} 13'26			2907 Dec 28 22:46	0° \mathbb{Z}	
	2903 Feb 05 01:18	0° \mathbb{X}		morning rise	2908 Jan 28 16:29	22° \mathbb{Z} 44'16	
	2903 Mar 21 19:33	0° \mathbb{I}			2908 Feb 07 07:35	0° \approx	
	2903 May 06 06:57	0° \mathbb{S}			2908 Mar 17 09:30	0° \mathbb{H}	
	2903 Jun 21 18:49	0° \mathbb{Q}			2908 Apr 24 22:14	0° \mathbb{Y}	
evening set	2903 Aug 06 04:32	28° \mathbb{Q} 51'57			2908 Jun 02 19:03	0° \mathbb{X}	
	2903 Aug 07 23:29	0° \mathbb{P}			2908 Jul 13 00:58	0° \mathbb{I}	
max. Earth dist.	2903 Sep 15 13:39	24° \mathbb{P} 29'22	2.67552 AU		2908 Aug 25 02:16	0° \mathbb{S}	
				asc. node	2908 Sep 03 07:07	6° \mathbb{S} 01'46	
conjunction	2903 Sep 21 00:07	27° \mathbb{P} 57'07	0°58'53		2908 Oct 13 04:54	0° \mathbb{Q}	
minimum elong	2903 Sep 21 01:05	27° \mathbb{P} 58'39	0°58'53	retrograde	2908 Dec 25 15:34	24° \mathbb{Q} 39'32	
	2903 Sep 24 05:14	0° \mathbb{A}		min. Earth dist.	2909 Jan 31 12:16	16° \mathbb{Q} 01'02	0.64672 AU
morning rise	2903 Nov 04 05:11	26° \mathbb{A} 20'28		opposition	2909 Feb 03 19:11	14° \mathbb{Q} 42'06	4°32'59
	2903 Nov 09 20:29	0° \mathbb{M}		greatest brilliancy	2909 Feb 03 01:32	14° \mathbb{Q} 59'46	-1.4m
	2903 Dec 25 11:22	0° \approx		direct	2909 Mar 14 22:16	5° \mathbb{Q} 27'08	
desc. node	2904 Jan 27 20:39	22° \approx 26'19			2909 Jun 01 11:17	0° \mathbb{P}	
	2904 Feb 07 23:19	0° \mathbb{Z}			2909 Jul 26 09:30	0° \mathbb{A}	
	2904 Mar 22 11:24	0° \approx			2909 Sep 13 00:14	0° \mathbb{M}	
	2904 May 04 08:33	0° \mathbb{H}		desc. node	2909 Sep 18 16:46	3° \mathbb{M} 41'02	
	2904 Jun 16 17:58	0° \mathbb{Y}			2909 Oct 27 21:10	0° \approx	
	2904 Aug 03 18:55	0° \mathbb{X}		evening set	2909 Dec 03 02:44	25° \approx 46'17	
retrograde	2904 Sep 30 00:25	18° \mathbb{X} 39'14			2909 Dec 08 21:17	0° \mathbb{Z}	
min. Earth dist.	2904 Oct 26 20:01	13° \mathbb{X} 51'14	0.42080 AU	max. Earth dist.	2909 Dec 20 18:37	8° \mathbb{Z} 48'15	2.41655 AU
opposition	2904 Nov 03 12:01	11° \mathbb{X} 22'18	-1°-36'-49		2910 Jan 17 18:14	0° \approx	
greatest brilliancy	2904 Nov 02 20:35	11° \mathbb{X} 34'51	-2.6m				
asc. node	2904 Nov 29 07:43	5° \mathbb{X} 35'24		conjunction	2910 Jan 29 11:55	9° \approx 03'23	-1°-2'-14
direct	2904 Dec 04 17:39	5° \mathbb{X} 23'25		minimum elong	2910 Jan 29 10:35	9° \approx 00'48	1°02'16
	2905 Feb 16 22:18	0° \mathbb{I}			2910 Feb 25 07:13	0° \mathbb{H}	
	2905 Apr 11 05:44	0° \mathbb{S}			2910 Apr 04 09:00	0° \mathbb{Y}	
	2905 May 31 04:50	0° \mathbb{Q}		morning rise	2910 Apr 06 17:47	1° \mathbb{Y} 51'38	
	2905 Jul 19 02:42	0° \mathbb{P}			2910 May 12 20:59	0° \mathbb{X}	
	2905 Sep 05 00:43	0° \mathbb{A}			2910 Jun 21 15:55	0° \mathbb{I}	
evening set	2905 Sep 11 03:47	3° \mathbb{A} 53'39		asc. node	2910 Jul 22 05:41	22° \mathbb{I} 03'55	
max. Earth dist.	2905 Oct 08 10:42	21° \mathbb{A} 26'40	2.63529 AU		2910 Aug 02 13:52	0° \mathbb{S}	
	2905 Oct 21 13:01	0° \mathbb{M}			2910 Sep 16 15:13	0° \mathbb{Q}	
					2910 Nov 06 05:14	0° \mathbb{P}	
conjunction	2905 Oct 26 16:27	3° \mathbb{M} 23'10	0°27'00	retrograde	2911 Jan 29 01:36	28° \mathbb{P} 40'16	
minimum elong	2905 Oct 26 17:18	3° \mathbb{M} 24'33	0°26'59	opposition	2911 Mar 10 04:39	19° \mathbb{P} 02'19	4°11'36
	2905 Dec 05 07:35	0° \approx		greatest brilliancy	2911 Mar 10 06:39	19° \mathbb{P} 00'19	-1.2m
morning rise	2905 Dec 11 13:03	4° \approx 16'19		min. Earth dist.	2911 Mar 10 19:10	18° \mathbb{P} 47'53	0.67843 AU
desc. node	2905 Dec 14 19:04	6° \approx 30'46		direct	2911 Apr 20 05:08	9° \mathbb{P} 10'04	
	2906 Jan 17 06:53	0° \mathbb{Z}			2911 Jun 29 10:32	0° \mathbb{A}	
	2906 Feb 27 15:36	0° \approx		desc. node	2911 Aug 06 15:11	20° \mathbb{A} 29'13	
	2906 Apr 08 19:15	0° \mathbb{H}			2911 Aug 22 14:32	0° \mathbb{M}	
	2906 May 18 09:26	0° \mathbb{Y}			2911 Oct 07 23:32	0° \approx	
	2906 Jun 27 11:34	0° \mathbb{X}			2911 Nov 19 07:44	0° \mathbb{Z}	
	2906 Aug 08 22:21	0° \mathbb{I}			2911 Dec 29 02:44	0° \approx	
	2906 Sep 28 07:50	0° \mathbb{S}		evening set	2912 Feb 02 18:54	27° \approx 52'59	
asc. node	2906 Oct 17 07:07	8° \mathbb{S} 13'59			2912 Feb 05 11:15	0° \mathbb{H}	
retrograde	2906 Nov 18 16:04	14° \mathbb{S} 43'35			2912 Mar 14 09:49	0° \mathbb{Y}	
min. Earth dist.	2906 Dec 20 11:21	7° \mathbb{S} 50'28	0.55188 AU				
greatest brilliancy	2906 Dec 26 06:35	5° \mathbb{S} 36'17	-1.8m	conjunction	2912 Apr 11 04:16	21° \mathbb{Y} 44'00	0°-36'-54
opposition	2906 Dec 27 10:49	5° \mathbb{S} 08'58	3°11'17	minimum elong	2912 Apr 11 07:19	21° \mathbb{Y} 49'55	0°36'52
	2907 Jan 11 10:16	30° \mathbb{R} \mathbb{I}			2912 Apr 21 21:10	0° \mathbb{X}	
direct	2907 Feb 01 08:34	27° \mathbb{I} 05'01			2912 May 31 16:53	0° \mathbb{I}	
	2907 Feb 23 21:02	0° \mathbb{S}		max. Earth dist.	2912 Jun 02 08:27	1° \mathbb{I} 12'49	2.41996 AU
	2907 May 05 22:43	0° \mathbb{Q}		asc. node	2912 Jun 08 04:30	5° \mathbb{I} 29'24	
	2907 Jun 28 11:55	0° \mathbb{P}		morning rise	2912 Jun 17 14:31	12° \mathbb{I} 19'28	
	2907 Aug 17 04:01	0° \mathbb{A}			2912 Jul 12 11:56	0° \mathbb{S}	
	2907 Oct 03 04:15	0° \mathbb{M}			2912 Aug 25 17:07	0° \mathbb{Q}	
evening set	2907 Oct 19 11:42	10° \mathbb{M} 47'59			2912 Oct 11 20:25	0° \mathbb{P}	
desc. node	2907 Nov 01 18:05	19° \mathbb{M} 44'41			2912 Dec 02 15:24	0° \mathbb{A}	
max. Earth dist.	2907 Nov 05 11:51	22° \mathbb{M} 17'34	2.54402 AU		2913 Feb 13 07:54	0° \mathbb{M}	

retrograde	2913 Mar 05 00:52	2°♌10'47		asc. node	2918 Jan 29 00:54	17°♊23'50	
	2913 Mar 23 14:12	30°♊♌			2918 Feb 15 19:48	0°♊	
opposition	2913 Apr 12 23:12	23°♌15'32	2°35'00		2918 Mar 30 19:59	0°♊	
greatest brilliancy	2913 Apr 13 12:58	23°♌02'10	-1.4m		2918 May 14 05:03	0°♊	
min. Earth dist.	2913 Apr 17 09:55	21°♌32'02	0.64377 AU		2918 Jun 29 00:23	0°♊	
direct	2913 May 24 10:31	13°♌14'07		evening set	2918 Jul 22 05:12	14°♊55'25	
desc. node	2913 Jun 23 14:01	18°♌14'42			2918 Aug 14 19:51	0°♊	
	2913 Jul 23 01:20	0°♌					
	2913 Sep 13 23:59	0°♊		conjunction	2918 Sep 06 22:15	14°♊41'56	1°05'30
	2913 Oct 28 01:37	0°♊		minimum elong	2918 Sep 06 22:53	14°♊42'56	1°05'31
	2913 Dec 07 10:20	0°♊		max. Earth dist.	2918 Sep 06 16:20	14°♊32'31	2.67648 AU
	2914 Jan 15 00:51	0°♊			2918 Sep 30 23:20	0°♌	
	2914 Feb 22 04:44	0°♊		morning rise	2918 Oct 21 09:05	13°♌01'29	
	2914 Apr 01 23:16	0°♊			2918 Nov 16 19:47	0°♌	
evening set	2914 Apr 14 07:47	9°♊21'31			2919 Jan 02 00:49	0°♊	
asc. node	2914 Apr 26 04:06	18°♊13'25		desc. node	2919 Feb 13 11:32	27°♊56'10	
	2914 May 12 03:46	0°♊			2919 Feb 16 14:21	0°♊	
					2919 Apr 02 19:08	0°♊	
conjunction	2914 Jun 14 11:34	23°♊51'37	0°30'22		2919 May 18 11:31	0°♊	
minimum elong	2914 Jun 14 09:54	23°♊48'41	0°30'21		2919 Jul 07 05:46	0°♊	
	2914 Jun 23 06:31	0°♊		retrograde	2919 Sep 05 07:10	19°♊25'26	
max. Earth dist.	2914 Jul 17 22:33	16°♊54'27	2.55163 AU	min. Earth dist.	2919 Oct 02 03:43	14°♊58'32	0.38287 AU
	2914 Aug 06 12:04	0°♊		opposition	2919 Oct 06 23:17	13°♊36'49	-4°-33'-1
morning rise	2914 Aug 08 00:21	1°♊00'04		greatest brilliancy	2919 Oct 06 02:55	13°♊51'16	-2.8m
	2914 Sep 21 18:38	0°♊		direct	2919 Nov 05 16:29	8°♊29'19	
	2914 Nov 09 02:53	0°♌		asc. node	2919 Dec 17 01:10	18°♊06'08	
	2914 Dec 30 13:47	0°♌			2920 Jan 11 05:38	0°♊	
	2915 Mar 02 03:37	0°♊			2920 Mar 03 10:26	0°♊	
retrograde	2915 Apr 17 08:29	10°♊15'23			2920 Apr 21 01:17	0°♊	
desc. node	2915 May 11 13:48	6°♊35'57			2920 Jun 08 04:56	0°♊	
opposition	2915 May 23 14:55	2°♊33'23	0°-32'-20		2920 Jul 26 06:30	0°♊	
greatest brilliancy	2915 May 23 20:40	2°♊28'08	-1.8m	evening set	2920 Aug 27 21:45	20°♊31'19	
	2915 May 30 14:54	30°♊♌			2920 Sep 11 20:17	0°♌	
min. Earth dist.	2915 May 31 09:14	29°♊43'33	0.54665 AU	max. Earth dist.	2920 Sep 29 00:28	10°♌58'48	2.65738 AU
direct	2915 Jul 02 10:21	23°♊12'41					
	2915 Aug 05 08:56	0°♊		conjunction	2920 Oct 12 04:53	19°♌29'05	0°41'38
	2915 Oct 01 06:28	0°♊		minimum elong	2920 Oct 12 05:57	19°♌30'50	0°41'38
	2915 Nov 13 14:36	0°♊			2920 Oct 28 08:27	0°♌	
	2915 Dec 23 13:09	0°♊		morning rise	2920 Nov 25 23:20	18°♌56'39	
	2916 Jan 31 14:59	0°♊			2920 Dec 12 09:10	0°♊	
	2916 Mar 11 05:33	0°♊		desc. node	2920 Dec 31 10:21	13°♊01'18	
asc. node	2916 Mar 13 02:01	1°♊22'53			2921 Jan 24 19:55	0°♊	
	2916 Apr 21 05:47	0°♊			2921 Mar 07 19:47	0°♊	
	2916 Jun 03 02:23	0°♊			2921 Apr 17 17:05	0°♊	
evening set	2916 Jun 08 20:29	3°♊55'38			2921 May 28 03:36	0°♊	
	2916 Jul 17 20:07	0°♊			2921 Jul 08 11:29	0°♊	
					2921 Aug 22 23:29	0°♊	
conjunction	2916 Jul 30 09:03	8°♊12'58	1°04'32	retrograde	2921 Nov 01 08:35	25°♊46'29	
minimum elong	2916 Jul 30 08:09	8°♊11'31	1°04'32	asc. node	2921 Nov 03 00:10	25°♊45'17	
max. Earth dist.	2916 Aug 14 03:53	17°♊48'53	2.64099 AU	min. Earth dist.	2921 Nov 30 22:37	19°♊43'59	0.50127 AU
	2916 Sep 02 02:35	0°♊		opposition	2921 Dec 08 22:54	16°♊46'30	1°52'08
morning rise	2916 Sep 15 16:49	8°♊40'29		greatest brilliancy	2921 Dec 08 01:58	17°♊05'53	-2.1m
	2916 Oct 19 09:53	0°♌		direct	2922 Jan 12 04:15	9°♊24'31	
	2916 Dec 06 11:02	0°♌			2922 Mar 21 07:57	0°♊	
	2917 Jan 24 14:26	0°♊			2922 May 16 11:08	0°♊	
	2917 Mar 17 18:44	0°♊			2922 Jul 06 12:57	0°♊	
desc. node	2917 Mar 28 12:40	5°♊42'02			2922 Aug 24 08:14	0°♌	
	2917 May 27 16:37	0°♊		evening set	2922 Oct 04 02:06	26°♌04'02	
retrograde	2917 Jun 16 17:11	2°♊19'29			2922 Oct 10 02:15	0°♌	
	2917 Jul 06 06:17	30°♊♌		max. Earth dist.	2922 Oct 24 16:05	9°♌38'54	2.58548 AU
opposition	2917 Jul 18 11:55	26°♊38'59	-5°-28'-3	desc. node	2922 Nov 18 09:20	26°♌21'50	
greatest brilliancy	2917 Jul 20 07:19	26°♊06'16	-2.6m				
min. Earth dist.	2917 Jul 25 16:38	24°♊29'49	0.41623 AU	conjunction	2922 Nov 20 00:09	27°♌28'24	0°00'-56
direct	2917 Aug 21 12:06	19°♊57'27		minimum elong	2922 Nov 20 00:07	27°♌28'20	0°00'58
	2917 Oct 01 01:13	0°♊		behind sun begin	2922 Nov 19 04:06	26°♌54'00	
	2917 Nov 22 01:42	0°♊		behind sun end	2922 Nov 20 20:08	28°♌02'41	
	2918 Jan 04 12:32	0°♊			2922 Nov 23 16:17	0°♊	

	2923 Jan 05 03:57	0°☾		retrograde	2928 Feb 19 12:58	19°♊05'44	
morning rise	2923 Jan 08 02:40	2°☾07'58		opposition	2928 Mar 30 02:06	9°♊50'52	3°21'26
	2923 Feb 14 20:33	0°♊		greatest brilliancy	2928 Mar 30 13:08	9°♊40'02	-1.3m
	2923 Mar 26 06:31	0°♋		min. Earth dist.	2928 Apr 02 01:03	8°♊41'12	0.66540 AU
	2923 May 04 02:29	0°♌			2928 May 05 04:29	30°♋♌	
	2923 Jun 12 06:19	0°♍		direct	2928 May 10 13:54	29°♋♌48'56	
	2923 Jul 22 23:13	0°♎			2928 May 16 01:27	0°♎	
	2923 Sep 05 05:35	0°♏		desc. node	2928 Jul 10 06:10	16°♎37'57	
asc. node	2923 Sep 20 22:30	9°♏38'16			2928 Aug 05 07:14	0°♎	
	2923 Oct 30 06:37	0°♐			2928 Sep 23 07:55	0°♏	
retrograde	2923 Dec 12 15:24	10°♐♑24'21			2928 Nov 05 10:55	0°☾	
min. Earth dist.	2924 Jan 16 16:12	2°♐22'28	0.61674 AU		2928 Dec 15 11:38	0°♊	
greatest brilliancy	2924 Jan 20 10:44	0°♐52'29	-1.5m		2929 Jan 22 22:09	0°♋	
opposition	2924 Jan 21 11:02	0°♐28'15	4°17'09		2929 Mar 01 22:31	0°♌	
	2924 Jan 22 15:29	30°♋♌		evening set	2929 Mar 18 07:40	12°♌49'43	
direct	2924 Feb 28 11:38	21°♌35'59			2929 Apr 09 12:47	0°♍	
	2924 Apr 09 13:20	0°♎		asc. node	2929 May 12 19:17	25°♍03'14	
	2924 Jun 12 10:54	0°♏			2929 May 19 12:27	0°♎	
	2924 Aug 03 12:48	0°♐					
	2924 Sep 20 08:15	0°♑		conjunction	2929 May 22 23:50	2°♎32'37	0°06'41
desc. node	2924 Oct 05 08:02	9°♑51'11		minimum elong	2929 May 22 23:20	2°♎31'42	0°06'40
	2924 Nov 04 00:28	0°♏		behind sun begin	2929 May 21 23:13	1°♎47'38	
evening set	2924 Nov 13 23:17	6°♏56'36		behind sun end	2929 May 23 23:27	3°♎15'42	
max. Earth dist.	2924 Nov 28 05:16	17°♏03'14	2.46836 AU		2929 Jun 30 10:42	0°♏	
	2924 Dec 16 02:08	0°☾		max. Earth dist.	2929 Jul 04 00:31	2°♏29'19	2.50362 AU
				morning rise	2929 Jul 21 01:27	14°♏12'07	
conjunction	2925 Jan 06 00:48	15°☾32'05	0°-49'-46		2929 Aug 13 14:05	0°♐	
minimum elong	2925 Jan 05 22:52	15°☾28'26	0°49'45		2929 Sep 29 00:50	0°♑	
	2925 Jan 25 03:01	0°♊			2929 Nov 17 05:19	0°♎	
	2925 Mar 04 20:19	0°♋			2930 Jan 10 17:53	0°♎	
morning rise	2925 Mar 07 22:55	2°♋26'04		retrograde	2930 Mar 30 02:06	24°♎39'06	
	2925 Apr 12 01:24	0°♌		opposition	2930 May 06 14:50	16°♎23'21	0°53'26
greatest brilliancy	2925 Apr 25 23:18	10°♌53'17	1.2m	greatest brilliancy	2930 May 06 23:05	16°♎15'35	-1.6m
	2925 May 20 15:20	0°♍		min. Earth dist.	2930 May 13 05:18	13°♎54'08	0.59167 AU
	2925 Jun 29 12:04	0°♎		desc. node	2930 May 28 04:40	9°♎04'32	
asc. node	2925 Aug 07 22:42	28°♎08'49		direct	2930 Jun 16 10:09	6°♎37'20	
	2925 Aug 10 15:16	0°♏			2930 Aug 25 20:10	0°♏	
	2925 Sep 25 12:26	0°♐			2930 Oct 12 18:45	0°☾	
	2925 Nov 18 22:47	0°♑			2930 Nov 23 08:39	0°♊	
retrograde	2926 Jan 15 18:40	15°♑56'43			2931 Jan 01 13:03	0°♋	
min. Earth dist.	2926 Feb 24 03:06	6°♑30'01	0.67394 AU		2931 Feb 09 02:48	0°♌	
opposition	2926 Feb 25 01:06	6°♑08'02	4°29'11		2931 Mar 20 06:37	0°♍	
greatest brilliancy	2926 Feb 24 19:37	6°♑13'31	-1.2m	asc. node	2931 Mar 30 19:21	7°♍54'17	
	2926 Mar 13 21:54	30°♋♌			2931 Apr 29 20:39	0°♎	
direct	2926 Apr 06 11:20	26°♐27'08		evening set	2931 May 20 21:09	15°♎01'25	
	2926 May 02 03:57	0°♑			2931 Jun 11 08:09	0°♏	
	2926 Jul 11 00:27	0°♎					
desc. node	2926 Aug 23 07:07	25°♎09'22		conjunction	2931 Jul 14 13:46	22°♏32'34	0°55'47
	2926 Aug 31 02:01	0°♎		minimum elong	2931 Jul 14 12:15	22°♏30'02	0°55'46
	2926 Oct 15 16:11	0°♏			2931 Jul 25 19:15	0°♐	
	2926 Nov 26 19:34	0°☾		max. Earth dist.	2931 Aug 05 01:57	6°♐45'59	2.61212 AU
	2927 Jan 05 14:19	0°♊		morning rise	2931 Sep 02 02:01	24°♐56'04	
evening set	2927 Jan 07 09:14	1°♊22'45			2931 Sep 09 23:40	0°♑	
	2927 Feb 12 23:47	0°♋			2931 Oct 27 13:05	0°♎	
					2931 Dec 15 11:34	0°♎	
conjunction	2927 Mar 13 17:46	22°♋43'44	0°-57'-55		2932 Feb 05 00:55	0°♏	
minimum elong	2927 Mar 13 20:26	22°♋49'01	0°57'56		2932 Apr 06 16:34	0°☾	
	2927 Mar 22 22:49	0°♌		desc. node	2932 Apr 14 03:34	2°☾41'07	
max. Earth dist.	2927 Apr 14 13:50	17°♌44'42	2.37374 AU	retrograde	2932 May 20 17:05	9°☾35'17	
	2927 Apr 30 09:26	0°♍		opposition	2932 Jun 23 09:36	3°☾01'58	-3°-26'-20
morning rise	2927 May 23 17:01	17°♍45'01		greatest brilliancy	2932 Jun 24 20:52	2°☾32'31	-2.3m
	2927 Jun 09 03:34	0°♎		min. Earth dist.	2932 Jul 01 19:00	0°☾14'44	0.46635 AU
asc. node	2927 Jun 25 21:06	12°♎13'10			2932 Jul 02 13:24	30°♋♌	
	2927 Jul 20 21:43	0°♏		direct	2932 Jul 30 07:34	25°♏00'09	
	2927 Sep 03 06:30	0°♐			2932 Aug 27 06:38	0°☾	
	2927 Oct 21 04:25	0°♑			2932 Oct 23 13:44	0°♊	
	2927 Dec 15 09:02	0°♎			2932 Dec 05 18:06	0°♋	

	2933 Jan 15 12:09	0°♄		desc. node	2937 Dec 05 00:37	3°♂00'23	
asc. node	2933 Feb 14 18:37	22°♄19'18		morning rise	2937 Dec 21 01:09	14°♂08'10	
	2933 Feb 25 07:01	0°♂			2938 Jan 12 10:44	0°♂	
	2933 Apr 08 05:57	0°♂			2938 Feb 22 13:17	0°♂	
	2933 May 21 20:40	0°♂			2938 Apr 03 09:58	0°♂	
evening set	2933 Jul 06 08:07	0°♂07'51			2938 May 12 16:34	0°♄	
	2933 Jul 06 03:18	0°♂			2938 Jun 21 08:17	0°♂	
	2933 Aug 21 15:42	0°♂			2938 Aug 01 21:56	0°♂	
					2938 Sep 17 19:32	0°♂	
conjunction	2933 Aug 23 11:24	1°♂09'48	1°08'27	asc. node	2938 Oct 07 15:31	10°♂30'30	
minimum elong	2933 Aug 23 11:31	1°♂10'00	1°08'27	retrograde	2938 Nov 27 18:00	24°♂49'38	
max. Earth dist.	2933 Aug 28 21:26	4°♂37'20	2.66892 AU	min. Earth dist.	2938 Dec 30 18:05	17°♂30'07	0.57730 AU
morning rise	2933 Oct 07 15:49	29°♂55'16		opposition	2939 Jan 05 23:19	15°♂03'58	3°42'28
	2933 Oct 07 18:48	0°♂		greatest brilliancy	2939 Jan 04 19:01	15°♂31'46	-1.7m
	2933 Nov 23 23:13	0°♂		direct	2939 Feb 11 16:24	6°♂40'45	
	2934 Jan 09 23:55	0°♂			2939 Apr 27 21:36	0°♂	
	2934 Feb 26 03:17	0°♂			2939 Jun 22 19:07	0°♂	
desc. node	2934 Mar 02 02:45	2°♂30'56			2939 Aug 12 04:47	0°♂	
	2934 Apr 15 08:03	0°♂			2939 Sep 28 11:38	0°♂	
	2934 Jun 07 12:13	0°♂		desc. node	2939 Oct 23 00:03	16°♂16'46	
retrograde	2934 Aug 05 13:30	17°♂39'11		evening set	2939 Oct 28 16:00	20°♂06'51	
opposition	2934 Sep 04 16:48	12°♂40'49	-6°-36'-9		2939 Nov 12 01:52	0°♂	
greatest brilliancy	2934 Sep 04 23:18	12°♂36'30	-2.9m	max. Earth dist.	2939 Nov 13 03:22	0°♂44'09	2.51844 AU
min. Earth dist.	2934 Sep 05 01:57	12°♂34'45	0.37217 AU				
direct	2934 Oct 04 11:55	7°♂42'56		conjunction	2939 Dec 17 14:12	25°♂08'43	0°-31'-45
	2934 Dec 09 14:34	0°♄		minimum elong	2939 Dec 17 12:51	25°♂06'15	0°31'45
asc. node	2935 Jan 02 16:44	14°♄01'53			2939 Dec 24 06:36	0°♂	
	2935 Jan 28 05:25	0°♂			2940 Feb 02 12:34	0°♂	
	2935 Mar 15 13:30	0°♂		morning rise	2940 Feb 10 17:58	6°♂16'18	
	2935 Apr 30 20:46	0°♂			2940 Mar 12 11:05	0°♂	
	2935 Jun 16 20:04	0°♂			2940 Apr 19 20:31	0°♄	
	2935 Aug 03 06:52	0°♂			2940 May 28 13:47	0°♂	
evening set	2935 Aug 14 13:09	7°♂06'47			2940 Jul 07 14:39	0°♂	
	2935 Sep 19 14:57	0°♂			2940 Aug 19 04:25	0°♂	
max. Earth dist.	2935 Sep 20 19:40	0°♂45'47	2.67128 AU	asc. node	2940 Aug 24 13:36	3°♂36'52	
					2940 Oct 05 14:32	0°♂	
conjunction	2935 Sep 29 01:37	6°♂01'58	0°53'25		2940 Dec 11 09:11	0°♂	
minimum elong	2935 Sep 29 02:41	6°♂03'40	0°53'25	retrograde	2941 Jan 02 11:02	2°♂53'37	
	2935 Nov 05 04:47	0°♂			2941 Jan 23 02:45	30°♂♂	
morning rise	2935 Nov 12 08:15	4°♂40'00		min. Earth dist.	2941 Feb 09 06:18	23°♂56'28	0.65934 AU
	2935 Dec 20 14:09	0°♂		opposition	2941 Feb 11 16:39	22°♂58'02	4°35'20
desc. node	2936 Jan 18 01:18	19°♂16'10		greatest brilliancy	2941 Feb 11 03:18	23°♂11'25	-1.3m
	2936 Feb 02 16:16	0°♂		direct	2941 Mar 23 07:51	13°♂32'36	
	2936 Mar 16 13:23	0°♂			2941 May 23 16:46	0°♂	
	2936 Apr 27 13:29	0°♂			2941 Jul 20 14:27	0°♂	
	2936 Jun 08 11:51	0°♄			2941 Sep 07 23:13	0°♂	
	2936 Jul 22 14:54	0°♂		desc. node	2941 Sep 08 22:17	0°♂36'52	
	2936 Sep 20 02:29	0°♂			2941 Oct 23 02:14	0°♂	
retrograde	2936 Oct 12 14:30	3°♂28'58			2941 Dec 04 04:04	0°♂	
	2936 Nov 03 18:24	30°♂♂		evening set	2941 Dec 14 23:14	7°♂59'32	
min. Earth dist.	2936 Nov 09 03:54	28°♂17'46	0.44807 AU	max. Earth dist.	2942 Jan 08 19:56	26°♂46'55	2.39065 AU
opposition	2936 Nov 17 09:41	25°♂28'20	0°-8'-6		2942 Jan 13 00:35	0°♂	
greatest brilliancy	2937 Apr 24 21:09	11°♂53'16	-4.1m				
asc. node	2936 Nov 19 16:21	24°♂41'57		conjunction	2942 Feb 13 04:05	24°♂13'29	-1°-4'-49
direct	2936 Dec 19 16:00	18°♂58'21		minimum elong	2942 Feb 13 03:57	24°♂13'14	1°04'50
	2937 Feb 03 17:32	0°♂			2942 Feb 20 12:23	0°♂	
	2937 Apr 04 02:38	0°♂			2942 Mar 30 12:53	0°♄	
	2937 May 25 14:32	0°♂		morning rise	2942 Apr 24 02:38	19°♄15'22	
	2937 Jul 14 03:39	0°♂			2942 May 07 23:32	0°♂	
	2937 Aug 31 08:30	0°♂			2942 Jun 16 16:53	0°♂	
evening set	2937 Sep 19 09:17	12°♂06'58		asc. node	2942 Jul 12 13:27	18°♂46'28	
max. Earth dist.	2937 Oct 14 04:19	28°♂11'03	2.61951 AU		2942 Jul 28 11:38	0°♂	
	2937 Oct 16 22:45	0°♂			2942 Sep 11 03:43	0°♂	
					2942 Oct 30 09:12	0°♂	
conjunction	2937 Nov 04 06:24	12°♂08'10	0°17'20		2943 Jan 01 21:29	0°♂	
minimum elong	2937 Nov 04 06:59	12°♂09'09	0°17'20	retrograde	2943 Feb 05 19:24	6°♂24'32	
	2937 Nov 30 15:40	0°♂			2943 Mar 09 17:51	30°♂♂	

opposition	2943 Mar 17 18:22	26° \mathbb{M} 53'53	3°56'12		2948 May 29 06:28	0° \mathfrak{S}	
greatest brilliancy	2943 Mar 18 00:05	26° \mathbb{M} 48'13	-1.2m	evening set	2948 Jun 19 06:39	14° \mathfrak{S} 11'05	
min. Earth dist.	2943 Mar 19 05:13	26° \mathbb{M} 19'21	0.67664 AU		2948 Jul 13 03:29	0° \mathcal{O}	
direct	2943 Apr 27 23:57	16° \mathbb{M} 56'54					
	2943 Jun 19 20:51	0° \mathfrak{L}		conjunction	2948 Aug 08 09:41	17° \mathcal{O} 05'55	1°07'18
desc. node	2943 Jul 27 20:40	18° \mathfrak{L} 42'24		minimum elong	2948 Aug 08 09:11	17° \mathcal{O} 05'06	1°07'17
	2943 Aug 16 14:13	0° \mathbb{M}		max. Earth dist.	2948 Aug 19 17:34	24° \mathcal{O} 23'50	2.65329 AU
	2943 Oct 02 17:51	0° \mathfrak{X}			2948 Aug 28 11:10	0° \mathbb{M}	
	2943 Nov 14 08:25	0° \mathfrak{Z}		morning rise	2948 Sep 23 19:23	16° \mathbb{M} 47'19	
	2943 Dec 24 05:29	0° \approx			2948 Oct 14 16:06	0° \mathfrak{L}	
	2944 Jan 31 14:42	0° \mathfrak{H}			2948 Dec 01 08:05	0° \mathbb{M}	
evening set	2944 Feb 18 15:35	14° \mathfrak{H} 15'45			2949 Jan 18 12:59	0° \mathfrak{X}	
	2944 Mar 09 13:43	0° \mathbb{Y}			2949 Mar 09 06:17	0° \mathfrak{Z}	
	2944 Apr 17 01:30	0° \mathfrak{X}		desc. node	2949 Mar 18 17:35	5° \mathfrak{Z} 29'53	
					2949 May 03 14:50	0° \approx	
conjunction	2944 Apr 27 01:34	7° \mathfrak{X} 38'58	0°-21'-19	retrograde	2949 Jul 04 02:55	17° \approx 42'36	
minimum elong	2944 Apr 27 03:27	7° \mathfrak{X} 42'33	0°21'19	opposition	2949 Aug 03 19:16	12° \approx 28'17	-6°-22'-34
	2944 May 26 21:40	0° \mathbb{I}		greatest brilliancy	2949 Aug 05 09:06	12° \approx 01'33	-2.7m
asc. node	2944 May 29 12:58	1° \mathbb{I} 56'21		min. Earth dist.	2949 Aug 09 06:37	10° \approx 55'50	0.39382 AU
max. Earth dist.	2944 Jun 15 20:54	14° \mathbb{I} 31'48	2.45007 AU	direct	2949 Sep 05 02:27	6° \approx 33'48	
morning rise	2944 Jun 30 13:30	24° \mathbb{I} 59'30			2949 Nov 10 12:59	0° \mathfrak{H}	
	2944 Jul 07 16:37	0° \mathfrak{S}			2949 Dec 27 13:32	0° \mathbb{Y}	
	2944 Aug 20 19:19	0° \mathcal{O}		asc. node	2950 Jan 19 09:37	15° \mathbb{Y} 34'55	
	2944 Oct 06 13:52	0° \mathbb{M}			2950 Feb 09 08:00	0° \mathfrak{X}	
	2944 Nov 26 02:24	0° \mathfrak{L}			2950 Mar 25 03:55	0° \mathbb{I}	
	2945 Jan 26 04:36	0° \mathbb{M}			2950 May 09 01:34	0° \mathfrak{S}	
retrograde	2945 Mar 13 18:16	10° \mathbb{M} 24'19			2950 Jun 24 04:43	0° \mathcal{O}	
opposition	2945 Apr 21 06:04	1° \mathbb{M} 41'40	2°01'49	evening set	2950 Jul 30 20:39	23° \mathcal{O} 25'54	
greatest brilliancy	2945 Apr 21 19:29	1° \mathbb{M} 28'46	-1.4m		2950 Aug 10 04:34	0° \mathbb{M}	
	2945 Apr 25 15:38	30° \mathfrak{R} \mathfrak{L}		max. Earth dist.	2950 Sep 11 20:38	20° \mathbb{M} 45'14	2.67699 AU
min. Earth dist.	2945 Apr 26 11:57	29° \mathfrak{L} 40'34	0.62784 AU				
direct	2945 Jun 01 13:55	21° \mathfrak{L} 43'03		conjunction	2950 Sep 15 00:15	22° \mathbb{M} 45'28	1°02'03
desc. node	2945 Jun 13 19:56	22° \mathfrak{L} 38'20		minimum elong	2950 Sep 15 01:06	22° \mathbb{M} 46'48	1°02'03
	2945 Jul 11 00:06	0° \mathbb{M}			2950 Sep 26 09:15	0° \mathfrak{L}	
	2945 Sep 07 08:45	0° \mathfrak{X}		morning rise	2950 Oct 29 06:23	21° \mathfrak{L} 03'20	
	2945 Oct 22 10:14	0° \mathfrak{Z}			2950 Nov 12 02:57	0° \mathbb{M}	
	2945 Dec 02 03:16	0° \approx			2950 Dec 28 00:13	0° \mathfrak{X}	
	2946 Jan 09 21:39	0° \mathfrak{H}		desc. node	2951 Feb 03 17:31	25° \mathfrak{X} 08'10	
	2946 Feb 17 04:10	0° \mathbb{Y}			2951 Feb 10 23:02	0° \mathfrak{Z}	
	2946 Mar 28 00:57	0° \mathfrak{X}			2951 Mar 27 03:04	0° \approx	
asc. node	2946 Apr 16 11:14	14° \mathfrak{X} 37'45			2951 May 10 00:09	0° \mathfrak{H}	
evening set	2946 Apr 28 08:16	23° \mathfrak{X} 25'39			2951 Jun 24 04:37	0° \mathbb{Y}	
	2946 May 07 07:44	0° \mathbb{I}			2951 Aug 18 17:30	0° \mathfrak{X}	
	2946 Jun 18 12:33	0° \mathfrak{S}		retrograde	2951 Sep 20 09:42	6° \mathfrak{X} 53'14	
				min. Earth dist.	2951 Oct 16 22:36	2° \mathfrak{X} 19'43	0.40130 AU
conjunction	2946 Jun 26 00:11	5° \mathfrak{S} 10'23	0°41'23	opposition	2951 Oct 23 16:12	0° \mathfrak{X} 16'09	-2°-52'-11
minimum elong	2946 Jun 25 22:22	5° \mathfrak{S} 07'15	0°41'22	greatest brilliancy	2951 Oct 22 18:47	0° \mathfrak{X} 32'36	-2.7m
max. Earth dist.	2946 Jul 24 21:54	24° \mathfrak{S} 45'47	2.57533 AU		2951 Oct 24 13:19	30° \mathfrak{R} \mathbb{Y}	
	2946 Aug 01 18:51	0° \mathcal{O}		direct	2951 Nov 23 03:22	24° \mathbb{Y} 42'21	
morning rise	2946 Aug 17 11:42	10° \mathcal{O} 19'58		asc. node	2951 Dec 07 07:50	25° \mathbb{Y} 59'49	
	2946 Sep 16 23:17	0° \mathbb{M}			2951 Dec 23 02:44	0° \mathfrak{X}	
	2946 Nov 03 22:30	0° \mathfrak{L}			2952 Feb 24 01:13	0° \mathbb{I}	
	2946 Dec 24 05:09	0° \mathbb{M}			2952 Apr 14 21:03	0° \mathfrak{S}	
	2947 Feb 18 07:14	0° \mathfrak{X}			2952 Jun 02 22:42	0° \mathcal{O}	
retrograde	2947 Apr 28 20:50	20° \mathfrak{X} 26'52			2952 Jul 21 10:58	0° \mathbb{M}	
desc. node	2947 May 01 18:33	20° \mathfrak{X} 23'44		evening set	2952 Sep 05 01:16	28° \mathbb{M} 36'56	
opposition	2947 Jun 03 06:38	13° \mathfrak{X} 06'43	-1°-30'-34		2952 Sep 07 05:37	0° \mathfrak{L}	
greatest brilliancy	2947 Jun 03 23:07	12° \mathfrak{X} 52'03	-2.0m	max. Earth dist.	2952 Oct 04 11:21	17° \mathfrak{L} 26'35	2.64628 AU
min. Earth dist.	2947 Jun 11 11:04	10° \mathfrak{X} 12'00	0.51920 AU				
direct	2947 Jul 12 06:21	4° \mathfrak{X} 07'25		conjunction	2952 Oct 20 09:52	27° \mathfrak{L} 48'07	0°33'27
	2947 Sep 22 09:39	0° \mathfrak{Z}		minimum elong	2952 Oct 20 10:50	27° \mathfrak{L} 49'42	0°33'27
	2947 Nov 06 20:45	0° \approx			2952 Oct 23 18:29	0° \mathbb{M}	
	2947 Dec 17 13:14	0° \mathfrak{H}		morning rise	2952 Dec 04 16:40	27° \mathbb{M} 57'41	
	2948 Jan 26 01:14	0° \mathbb{Y}			2952 Dec 07 16:37	0° \mathfrak{X}	
asc. node	2948 Mar 03 10:19	28° \mathbb{Y} 07'20		desc. node	2952 Dec 21 16:13	9° \mathfrak{X} 34'51	
	2948 Mar 05 23:02	0° \mathfrak{X}			2953 Jan 19 21:44	0° \mathfrak{Z}	
	2948 Apr 16 05:05	0° \mathbb{I}			2953 Mar 02 13:33	0° \approx	

	2953 Apr 12 00:45	0° H			2958 Jul 03 19:25	0° L		
	2953 May 21 22:53	0° Y		desc. node	2958 Aug 13 12:12	22° L 40'24		
	2953 Jul 01 10:43	0° B			2958 Aug 25 13:52	0° M		
	2953 Aug 13 18:40	0° II			2958 Oct 10 16:05	0° J		
	2953 Oct 08 02:42	0° S			2958 Nov 21 23:38	0° Z		
asc. node	2953 Oct 24 07:11	5° S 07'07			2958 Dec 31 19:26	0° \approx		
retrograde	2953 Nov 11 12:24	7° S 21'08		evening set	2959 Jan 21 21:17	16° \approx 22'59		
min. Earth dist.	2953 Dec 12 07:32	0° S 49'53	0.52988 AU		2959 Feb 08 04:40	0° H		
	2953 Dec 14 12:44	30° R II			2959 Mar 18 03:15	0° Y		
opposition	2953 Dec 19 19:12	27° II 59'22	2°42'27					
greatest brilliancy	2953 Dec 18 16:33	28° II 24'46	-1.9m	conjunction	2959 Mar 30 08:32	9° Y 36'53	0°-47'-23	
direct	2954 Jan 23 23:29	20° II 12'53		minimum elong	2959 Mar 30 11:53	9° Y 43'29	0°47'23	
	2954 Mar 08 21:06	0° S			2959 Apr 25 13:31	0° B		
	2954 May 09 19:43	0° Q		max. Earth dist.	2959 May 19 11:53	18° B 13'08	2.39659 AU	
	2954 Jul 01 05:06	0° M			2959 Jun 04 07:15	0° II		
	2954 Aug 19 12:33	0° L		morning rise	2959 Jun 07 19:14	2° II 34'41		
	2954 Oct 05 10:59	0° M		asc. node	2959 Jun 16 04:38	8° II 42'52		
evening set	2954 Oct 12 18:28	4° M 48'44			2959 Jul 16 00:24	0° S		
max. Earth dist.	2954 Oct 31 07:41	17° M 12'24	2.56347 AU		2959 Aug 29 05:04	0° Q		
desc. node	2954 Nov 08 14:54	22° M 50'17			2959 Oct 15 13:21	0° M		
	2954 Nov 19 01:23	0° J			2959 Dec 07 08:56	0° L		
				retrograde	2960 Feb 27 18:12	27° L 00'46		
conjunction	2954 Nov 29 12:42	7° J 16'24	0°-12'-9	opposition	2960 Apr 06 23:18	17° L 56'21	2°55'40	
minimum elong	2954 Nov 29 12:12	7° J 15'31	0°12'10	greatest brilliancy	2960 Apr 07 12:11	17° L 43'46	-1.3m	
behind sun begin	2954 Nov 28 22:18	6° J 51'16		min. Earth dist.	2960 Apr 10 18:09	16° L 27'38	0.65464 AU	
behind sun end	2954 Nov 30 02:05	7° J 39'47		direct	2960 May 18 11:01	7° L 53'53		
	2954 Dec 31 10:53	0° Z		desc. node	2960 Jun 30 10:52	17° L 17'41		
morning rise	2955 Jan 19 09:15	13° Z 51'37			2960 Jul 28 08:42	0° M		
	2955 Feb 09 23:57	0° \approx			2960 Sep 17 10:43	0° J		
	2955 Mar 21 05:47	0° H			2960 Oct 31 03:24	0° Z		
	2955 Apr 28 21:41	0° Y			2960 Dec 10 09:28	0° \approx		
	2955 Jun 06 20:43	0° B			2961 Jan 17 22:29	0° H		
	2955 Jul 17 05:22	0° II			2961 Feb 25 00:37	0° Y		
	2955 Aug 29 14:42	0° S		evening set	2961 Apr 02 20:04	28° Y 35'02		
asc. node	2955 Sep 11 07:26	8° S 09'12			2961 Apr 04 16:29	0° B		
	2955 Oct 19 06:33	0° Q		asc. node	2961 May 03 04:17	21° B 28'41		
retrograde	2955 Dec 20 18:56	19° Q 09'25			2961 May 14 17:32	0° II		
min. Earth dist.	2956 Jan 25 20:05	10° Q 46'29	0.63444 AU					
opposition	2956 Jan 29 18:56	9° Q 11'40	4°28'33	conjunction	2961 Jun 05 02:04	15° II 27'02	0°20'54	
greatest brilliancy	2956 Jan 28 22:03	9° Q 32'34	-1.4m	minimum elong	2961 Jun 05 00:42	15° II 24'37	0°20'53	
direct	2956 Mar 08 10:12	0° Q 06'15			2961 Jun 25 16:54	0° S		
	2956 Jun 05 12:40	0° M		max. Earth dist.	2961 Jul 12 08:10	11° S 29'13	2.53087 AU	
	2956 Jul 29 04:00	0° L		morning rise	2961 Jul 31 12:24	24° S 27'38		
	2956 Sep 15 11:28	0° M			2961 Aug 08 19:51	0° Q		
desc. node	2956 Sep 25 13:35	6° M 34'11			2961 Sep 24 02:41	0° M		
	2956 Oct 30 07:41	0° J			2961 Nov 11 17:18	0° L		
evening set	2956 Nov 24 13:15	17° J 46'38			2962 Jan 03 04:08	0° M		
max. Earth dist.	2956 Dec 09 18:03	28° J 47'23	2.43951 AU		2962 Mar 13 12:50	0° J		
	2956 Dec 11 09:42	0° Z		retrograde	2962 Apr 09 05:05	3° J 48'37		
					2962 May 03 21:38	30° R M		
conjunction	2957 Jan 18 20:28	28° Z 49'42	0°-57'-53	opposition	2962 May 16 01:24	25° M 50'37	0°06'10	
minimum elong	2957 Jan 18 18:39	28° Z 46'15	0°57'53	greatest brilliancy	2962 Jan 04 15:50	0° M 47'43	-3.0m	
	2957 Jan 20 09:11	0° \approx		desc. node	2962 May 18 10:31	24° M 57'30		
	2957 Feb 28 00:23	0° H		min. Earth dist.	2962 May 23 07:47	23° M 08'53	0.56765 AU	
morning rise	2957 Mar 24 08:45	19° H 09'14		direct	2962 Jun 25 08:30	16° M 16'34		
	2957 Apr 07 03:34	0° Y			2962 Aug 15 04:35	0° J		
	2957 May 15 15:47	0° B			2962 Oct 05 21:33	0° Z		
	2957 Jun 24 10:13	0° II			2962 Nov 17 09:31	0° \approx		
asc. node	2957 Jul 29 06:17	25° II 03'37			2962 Dec 26 23:21	0° H		
	2957 Aug 05 08:34	0° S			2963 Feb 03 19:08	0° Y		
	2957 Sep 19 14:41	0° Q			2963 Mar 15 03:53	0° B		
	2957 Nov 10 06:45	0° M		asc. node	2963 Mar 21 02:42	4° B 27'26		
retrograde	2958 Jan 23 10:18	23° M 44'54			2963 Apr 24 22:11	0° II		
opposition	2958 Mar 04 14:49	14° M 01'50	4°20'11	evening set	2963 Jun 01 12:08	26° II 30'57		
greatest brilliancy	2958 Mar 04 13:36	14° M 03'03	-1.2m		2963 Jun 06 13:25	0° S		
min. Earth dist.	2958 Mar 04 13:07	14° M 03'31	0.67764 AU		2963 Jul 21 02:50	0° Q		
direct	2958 Apr 14 08:56	4° M 14'13						

conjunction	2963 Jul 24 07:48	2°06'51	1°01'29	retrograde	2968 Oct 24 04:40	17°00'28	
minimum elong	2963 Jul 24 06:38	2°04'56	1°01'28	asc. node	2968 Nov 10 00:34	14°05'31	
max. Earth dist.	2963 Aug 10 23:10	13°03'13	2.62914 AU	min. Earth dist.	2968 Nov 21 18:50	11°02'26	0.47739 AU
	2963 Sep 05 07:24	0°00		greatest brilliancy	2968 Nov 29 11:30	8°03'59	-2.2m
morning rise	2963 Sep 10 12:38	3°00'20	14	opposition	2968 Nov 30 01:05	8°02'34	1°06'27
	2963 Oct 22 16:28	0°00		direct	2969 Jan 02 10:36	1°02'34	
	2963 Dec 10 01:31	0°00			2969 Mar 26 22:52	0°00	
	2964 Jan 29 01:54	0°00			2969 May 19 17:04	0°00	
	2964 Mar 23 23:12	0°00			2969 Jul 09 01:49	0°00	
desc. node	2964 Apr 04 09:24	5°00'27	07		2969 Aug 26 15:06	0°00	
retrograde	2964 Jun 04 06:50	22°00'19	56	evening set	2969 Sep 27 17:49	20°00'29	07
opposition	2964 Jul 06 23:02	16°00'15	38		2969 Oct 12 08:15	0°00	
greatest brilliancy	2964 Jul 08 17:23	15°00'42	04	max. Earth dist.	2969 Oct 20 05:14	5°00'11	10 2.60170 AU
min. Earth dist.	2964 Jul 14 23:23	13°00'44	29				
direct	2964 Aug 11 08:35	8°00'56	03	conjunction	2969 Nov 13 02:45	21°00'11	09 0°06'59
	2964 Oct 12 10:59	0°00		minimum elong	2969 Nov 13 03:00	21°00'11	34 0°07'00
	2964 Nov 27 23:10	0°00		behind sun begin	2969 Nov 12 08:56	20°00'40	58
	2965 Jan 08 22:22	0°00		behind sun end	2969 Nov 13 21:04	21°00'42	11
asc. node	2965 Feb 05 01:12	19°00'38	51	desc. node	2969 Nov 25 06:00	29°00'27	55
	2965 Feb 19 10:21	0°00			2969 Nov 26 00:41	0°00	
	2965 Apr 02 20:55	0°00		morning rise	2969 Dec 31 01:01	24°00'31	24
	2965 May 16 20:15	0°00			2970 Jan 07 16:31	0°00	
	2965 Jul 01 08:40	0°00			2970 Feb 17 14:16	0°00	
evening set	2965 Jul 15 13:06	9°00'10	47		2970 Mar 29 05:07	0°00	
	2965 Aug 17 00:22	0°00			2970 May 07 05:27	0°00	
					2970 Jun 15 13:21	0°00	
conjunction	2965 Aug 31 19:34	9°00'26	01		2970 Jul 26 12:13	0°00	
minimum elong	2965 Aug 31 20:00	9°00'26	43		2970 Sep 09 12:40	0°00	
max. Earth dist.	2965 Sep 03 02:26	10°00'53	20	asc. node	2970 Sep 27 22:56	10°00'49	26
	2965 Oct 03 03:25	0°00			2970 Nov 09 17:52	0°00	
morning rise	2965 Oct 15 12:29	7°00'52	53	retrograde	2970 Dec 06 10:28	4°00'22	24
	2965 Nov 19 03:15	0°00			2970 Dec 31 10:02	30°00'00	
	2966 Jan 04 16:42	0°00		min. Earth dist.	2971 Jan 09 13:48	26°00'38	28 0.60018 AU
	2966 Feb 19 21:19	0°00		greatest brilliancy	2971 Jan 13 21:24	24°00'55	57 -1.6m
desc. node	2966 Feb 20 08:14	0°00'17	44	opposition	2971 Jan 15 00:04	24°00'29	29 4°05'30
	2966 Apr 07 04:23	0°00		direct	2971 Feb 21 10:33	15°00'49	23
	2966 May 25 01:29	0°00			2971 Apr 18 01:42	0°00	
	2966 Jul 23 01:46	0°00			2971 Jun 16 18:07	0°00	
retrograde	2966 Aug 23 09:30	5°00'59	22		2971 Aug 07 02:23	0°00	
min. Earth dist.	2966 Sep 20 09:45	1°00'24	27		2971 Sep 23 17:18	0°00	
opposition	2966 Sep 23 01:38	0°00'41	23	desc. node	2971 Oct 13 04:36	12°00'20	37
greatest brilliancy	2966 Sep 22 14:15	0°00'49	04	evening set	2971 Nov 07 07:49	29°00'20	11
	2966 Sep 25 15:16	30°00'00			2971 Nov 07 10:02	0°00	
direct	2966 Oct 22 11:14	25°00'46	06	max. Earth dist.	2971 Nov 21 20:56	10°00'05	53 2.49129 AU
	2966 Nov 17 16:41	0°00			2971 Dec 19 14:12	0°00	
asc. node	2966 Dec 24 01:03	15°00'34	57				
	2967 Jan 18 21:39	0°00		conjunction	2971 Dec 28 20:22	6°00'47	49 0°42'-29
	2967 Mar 08 19:04	0°00		minimum elong	2971 Dec 28 18:36	6°00'44	34 0°42'30
	2967 Apr 25 05:13	0°00			2972 Jan 28 18:20	0°00	
	2967 Jun 11 18:33	0°00		morning rise	2972 Feb 25 00:27	20°00'58	49
	2967 Jul 29 13:03	0°00			2972 Mar 07 14:22	0°00	
evening set	2967 Aug 22 19:22	15°00'16	55		2972 Apr 14 21:19	0°00	
	2967 Sep 15 00:29	0°00			2972 May 23 12:08	0°00	
max. Earth dist.	2967 Sep 26 02:33	7°00'04	38		2972 Jul 02 09:12	0°00	
					2972 Aug 13 14:33	0°00	
conjunction	2967 Oct 07 03:27	14°00'09	41	asc. node	2972 Aug 14 22:37	0°00'45	46
minimum elong	2967 Oct 07 04:33	14°00'11	27		2972 Sep 28 21:49	0°00	
	2967 Oct 31 13:51	0°00			2972 Nov 25 01:42	0°00	
morning rise	2967 Nov 20 14:50	13°00'20	37	retrograde	2973 Jan 10 03:54	10°00'20	54
	2967 Dec 15 19:04	0°00		min. Earth dist.	2973 Feb 17 19:37	1°00'40	07 0.66862 AU
desc. node	2968 Jan 08 07:14	15°00'59	48	opposition	2973 Feb 19 09:51	1°00'01	49 4°33'16
	2968 Jan 28 12:56	0°00		greatest brilliancy	2973 Feb 19 00:52	1°00'10	49 -1.3m
	2968 Mar 10 22:14	0°00			2973 Feb 21 23:46	30°00'00	
	2968 Apr 21 06:21	0°00		direct	2973 Mar 31 11:33	21°00'27	22
	2968 Jun 01 06:09	0°00			2973 May 12 07:07	0°00	
	2968 Jul 13 10:48	0°00			2973 Jul 14 10:45	0°00	
	2968 Aug 30 17:12	0°00		desc. node	2973 Aug 30 03:32	27°00'42	23

	2973 Sep 02 19:01	0°♌		conjunction	2978 Jul 06 20:17	15°♊47'40	0°50'26
	2973 Oct 18 05:44	0°♏		minimum elong	2978 Jul 06 18:35	15°♊44'47	0°50'25
	2973 Nov 29 09:37	0°♐			2978 Jul 28 01:47	0°♏	
evening set	2973 Dec 27 20:09	21°♐16'10		max. Earth dist.	2978 Jul 31 12:34	2°♏16'57	2.59667 AU
	2974 Jan 08 06:05	0°♑		morning rise	2978 Aug 26 13:29	19°♏17'52	
max. Earth dist.	2974 Feb 13 20:04	28°♑31'34	2.37174 AU		2978 Sep 12 05:02	0°♐	
	2974 Feb 15 16:57	0°♒			2978 Oct 29 21:21	0°♑	
					2978 Dec 18 07:18	0°♌	
conjunction	2974 Mar 01 00:09	10°♒29'54	-1°-2'-49		2979 Feb 09 08:14	0°♏	
minimum elong	2974 Mar 01 01:41	10°♒32'57	1°02'50	desc. node	2979 Apr 22 00:04	29°♏17'42	
	2974 Mar 25 16:34	0°♑			2979 Apr 25 17:34	0°♐	
	2974 May 03 02:43	0°♒		retrograde	2979 May 11 07:30	1°♐23'40	
morning rise	2974 May 11 04:17	6°♒11'39			2979 May 26 03:44	30°♒♏	
	2974 Jun 11 19:23	0°♑		opposition	2979 Jun 14 19:28	24°♏28'11	-2°-34'-39
asc. node	2974 Jul 02 21:25	15°♑22'41		greatest brilliancy	2979 Jun 15 23:03	24°♏04'22	-2.1m
	2974 Jul 23 12:13	0°♊		min. Earth dist.	2979 Jun 23 05:37	21°♏34'26	0.49024 AU
	2974 Sep 05 21:47	0°♏		direct	2979 Jul 22 17:40	15°♏57'37	
	2974 Oct 24 04:44	0°♐			2979 Sep 10 12:16	0°♐	
	2974 Dec 20 13:39	0°♑			2979 Oct 30 05:30	0°♑	
retrograde	2975 Feb 13 15:13	14°♑07'28			2979 Dec 11 02:27	0°♒	
opposition	2975 Mar 25 08:52	4°♑45'09	3°37'05		2980 Jan 20 04:45	0°♑	
greatest brilliancy	2975 Mar 25 17:45	4°♑36'23	-1.2m	asc. node	2980 Feb 22 18:47	25°♑02'16	
min. Earth dist.	2975 Mar 27 15:37	3°♑51'06	0.67169 AU		2980 Feb 29 12:28	0°♒	
	2975 Apr 06 21:20	30°♒♐			2980 Apr 11 02:02	0°♑	
direct	2975 May 05 18:02	24°♐44'48			2980 May 24 09:12	0°♊	
	2975 Jun 06 05:58	0°♑		evening set	2980 Jun 29 04:38	23°♊56'06	
desc. node	2975 Jul 18 02:49	17°♑32'35			2980 Jul 08 10:10	0°♏	
	2975 Aug 10 03:23	0°♌					
	2975 Sep 27 08:51	0°♏		conjunction	2980 Aug 17 03:29	25°♏43'26	1°08'29
	2975 Nov 09 07:26	0°♐		minimum elong	2980 Aug 17 03:22	25°♏43'15	1°08'28
	2975 Dec 19 07:23	0°♑			2980 Aug 23 19:40	0°♐	
	2976 Jan 26 17:27	0°♒		max. Earth dist.	2980 Aug 25 04:33	0°♐52'36	2.66299 AU
greatest brilliancy	2976 Feb 14 23:52	15°♒13'40	1.2m	morning rise	2980 Oct 01 19:14	24°♐49'35	
	2976 Mar 04 16:50	0°♑			2980 Oct 09 23:00	0°♑	
evening set	2976 Mar 05 21:23	0°♑56'11			2980 Nov 26 08:07	0°♌	
	2976 Apr 12 05:15	0°♒			2981 Jan 12 20:07	0°♏	
					2981 Mar 01 22:19	0°♐	
conjunction	2976 May 12 04:01	22°♒39'19	0°-5'-4	desc. node	2981 Mar 08 23:12	4°♐18'50	
minimum elong	2976 May 12 04:25	22°♒40'04	0°05'05		2981 Apr 21 07:37	0°♑	
behind sun begin	2976 May 11 02:19	21°♒51'28			2981 Jun 24 09:41	0°♒	
behind sun end	2976 May 13 06:31	23°♒28'36		retrograde	2981 Jul 22 04:52	4°♒30'32	
asc. node	2976 May 19 19:15	28°♒18'52			2981 Aug 19 15:11	30°♒♑	
	2976 May 22 02:08	0°♑		opposition	2981 Aug 21 08:42	29°♑32'07	-6°-47'-5
max. Earth dist.	2976 Jun 26 23:05	25°♑50'06	2.48026 AU	greatest brilliancy	2981 Aug 22 07:27	29°♑16'46	-2.8m
	2976 Jul 02 21:32	0°♊		min. Earth dist.	2981 Aug 24 05:32	28°♑45'46	0.37811 AU
morning rise	2976 Jul 12 13:47	6°♊43'35		direct	2981 Sep 21 01:58	24°♑15'58	
	2976 Aug 15 23:00	0°♏			2981 Oct 21 05:44	0°♒	
	2976 Oct 01 11:16	0°♐			2981 Dec 17 22:17	0°♑	
	2976 Nov 20 01:48	0°♑		asc. node	2982 Jan 09 16:50	14°♑32'05	
	2977 Jan 15 12:03	0°♌			2982 Feb 02 03:37	0°♒	
retrograde	2977 Mar 22 21:28	18°♌52'55			2982 Mar 19 03:51	0°♑	
opposition	2977 Apr 29 20:54	10°♌24'28	1°23'54		2982 May 03 17:41	0°♊	
greatest brilliancy	2977 Apr 30 08:07	10°♌13'48	-1.5m		2982 Jun 19 06:36	0°♏	
min. Earth dist.	2977 May 05 20:45	8°♌07'25	0.60902 AU		2982 Aug 05 11:56	0°♐	
desc. node	2977 Jun 04 01:28	0°♌45'09		evening set	2982 Aug 08 08:10	1°♐48'03	
direct	2977 Jun 09 22:27	0°♌31'27		max. Earth dist.	2982 Sep 17 01:46	27°♐00'42	2.67484 AU
	2977 Aug 30 22:20	0°♏			2982 Sep 21 18:21	0°♑	
	2977 Oct 16 11:34	0°♐					
	2977 Nov 26 16:31	0°♑		conjunction	2982 Sep 23 02:01	0°♑50'27	0°57'24
	2978 Jan 04 16:20	0°♒		minimum elong	2982 Sep 23 03:00	0°♑52'02	0°57'23
	2978 Feb 12 02:13	0°♑		morning rise	2982 Nov 06 06:52	29°♑15'39	
	2978 Mar 23 01:54	0°♒			2982 Nov 07 10:11	0°♌	
asc. node	2978 Apr 06 19:12	11°♒04'58			2982 Dec 23 01:14	0°♏	
	2978 May 02 11:13	0°♑		desc. node	2983 Jan 24 22:14	22°♏06'13	
evening set	2978 May 11 11:25	6°♑30'42			2983 Feb 05 12:29	0°♐	
	2978 Jun 13 18:15	0°♊			2983 Mar 20 22:38	0°♑	
					2983 May 02 15:48	0°♒	

	2983 Jun 14 16:01	0°♄			2988 Dec 06 17:21	0°♄	
	2983 Jul 31 07:40	0°♄		max. Earth dist.	2988 Dec 24 09:25	13°♄06'03	2.41152 AU
retrograde	2983 Oct 04 00:26	22°♄53'19			2989 Jan 15 16:06	0°♄	
min. Earth dist.	2983 Oct 30 21:15	18°♄02'34	0.42555 AU				
opposition	2983 Nov 07 18:17	15°♄28'10	-1°-14'-14	conjunction	2989 Feb 01 15:55	13°♄07'29	-1°-3'-14
greatest brilliancy	2983 Nov 07 05:47	15°♄38'25	-2.6m	minimum elong	2989 Feb 01 14:48	13°♄05'20	1°03'14
asc. node	2983 Nov 27 16:10	10°♄17'27			2989 Feb 23 05:47	0°♄	
direct	2983 Dec 09 03:40	9°♄23'42			2989 Apr 02 07:12	0°♄	
	2984 Feb 13 16:09	0°♄		morning rise	2989 Apr 10 13:14	6°♄29'15	
	2984 Apr 08 04:22	0°♄			2989 May 10 17:50	0°♄	
	2984 May 28 11:28	0°♄			2989 Jun 19 10:23	0°♄	
	2984 Jul 16 13:03	0°♄		asc. node	2989 Jul 19 13:21	21°♄49'14	
	2984 Sep 02 13:35	0°♄			2989 Jul 31 04:43	0°♄	
evening set	2984 Sep 13 05:42	6°♄46'48			2989 Sep 13 23:55	0°♄	
max. Earth dist.	2984 Oct 10 01:44	24°♄03'42	2.63243 AU		2989 Nov 02 22:25	0°♄	
	2984 Oct 19 03:53	0°♄			2990 Jan 15 03:21	0°♄	
				retrograde	2990 Jan 31 02:43	1°♄29'24	
conjunction	2984 Oct 28 19:50	6°♄21'49	0°24'22		2990 Feb 15 05:12	30°♄	
minimum elong	2984 Oct 28 20:37	6°♄23'06	0°24'21	opposition	2990 Mar 12 04:13	21°♄52'44	4°07'23
	2984 Dec 02 23:59	0°♄		greatest brilliancy	2990 Mar 12 06:59	21°♄49'59	-1.2m
desc. node	2984 Dec 11 21:22	6°♄06'02		min. Earth dist.	2990 Mar 12 22:37	21°♄34'25	0.67841 AU
morning rise	2984 Dec 13 20:16	7°♄26'56		direct	2990 Apr 22 04:43	11°♄59'29	
	2985 Jan 15 00:11	0°♄			2990 Jun 25 11:24	0°♄	
	2985 Feb 25 09:09	0°♄		desc. node	2990 Aug 03 17:40	20°♄32'36	
	2985 Apr 06 12:21	0°♄			2990 Aug 19 19:38	0°♄	
	2985 May 16 01:12	0°♄			2990 Oct 05 13:27	0°♄	
	2985 Jun 25 00:04	0°♄			2990 Nov 17 02:09	0°♄	
	2985 Aug 06 02:24	0°♄			2990 Dec 26 23:39	0°♄	
	2985 Sep 24 00:43	0°♄			2991 Feb 03 09:17	0°♄	
asc. node	2985 Oct 14 16:08	9°♄39'49		evening set	2991 Feb 06 05:38	2°♄14'58	
retrograde	2985 Nov 20 23:44	18°♄01'04			2991 Mar 13 07:53	0°♄	
min. Earth dist.	2985 Dec 23 00:33	11°♄02'07	0.55694 AU				
opposition	2985 Dec 29 19:43	8°♄24'01	3°20'58	conjunction	2991 Apr 15 18:10	26°♄08'16	0°-33'-19
greatest brilliancy	2985 Dec 28 15:01	8°♄51'55	-1.8m	minimum elong	2991 Apr 15 21:02	26°♄13'47	0°33'19
direct	2986 Feb 03 20:25	0°♄16'11			2991 Apr 20 18:21	0°♄	
	2986 May 02 11:29	0°♄			2991 May 30 12:16	0°♄	
	2986 Jun 25 16:31	0°♄		max. Earth dist.	2991 Jun 06 09:58	5°♄04'41	2.42550 AU
	2986 Aug 14 14:55	0°♄		asc. node	2991 Jun 06 13:14	5°♄10'39	
	2986 Sep 30 19:05	0°♄		morning rise	2991 Jun 21 16:26	16°♄09'11	
evening set	2986 Oct 21 16:28	13°♄49'52			2991 Jul 11 04:46	0°♄	
desc. node	2986 Oct 29 20:36	19°♄20'25			2991 Aug 24 06:29	0°♄	
max. Earth dist.	2986 Nov 07 10:45	25°♄11'22	2.53932 AU		2991 Oct 10 04:17	0°♄	
	2986 Nov 14 10:40	0°♄			2991 Nov 30 09:48	0°♄	
					2992 Feb 05 03:53	0°♄	
conjunction	2986 Dec 09 13:07	17°♄36'27	0°-23'-28	retrograde	2992 Mar 07 05:11	5°♄03'36	
minimum elong	2986 Dec 09 12:06	17°♄34'40	0°23'28		2992 Apr 04 15:58	30°♄	
	2986 Dec 26 18:27	0°♄		opposition	2992 Apr 15 01:00	26°♄10'38	2°25'44
morning rise	2987 Jan 31 14:33	26°♄32'44		greatest brilliancy	2992 Apr 15 14:34	25°♄57'28	-1.4m
	2987 Feb 05 04:19	0°♄		min. Earth dist.	2992 Apr 19 15:04	24°♄23'51	0.64110 AU
	2987 Mar 16 06:21	0°♄		direct	2992 May 26 10:58	16°♄09'17	
	2987 Apr 23 18:21	0°♄		desc. node	2992 Jun 20 16:42	19°♄45'27	
	2987 Jun 01 13:26	0°♄			2992 Jul 18 16:55	0°♄	
	2987 Jul 11 16:05	0°♄			2992 Sep 11 05:03	0°♄	
	2987 Aug 23 10:55	0°♄			2992 Oct 25 16:16	0°♄	
asc. node	2987 Sep 01 14:02	6°♄02'25			2992 Dec 05 05:05	0°♄	
	2987 Oct 10 18:50	0°♄			2993 Jan 12 21:15	0°♄	
retrograde	2987 Dec 28 16:59	27°♄35'02			2993 Feb 20 01:22	0°♄	
min. Earth dist.	2988 Feb 03 17:43	18°♄52'30	0.64952 AU		2993 Mar 30 19:09	0°♄	
opposition	2988 Feb 06 20:23	17°♄37'41	4°34'22	evening set	2993 Apr 17 14:14	13°♄27'43	
greatest brilliancy	2988 Feb 06 03:33	17°♄54'34	-1.3m	asc. node	2993 Apr 23 11:45	17°♄52'05	
direct	2988 Mar 17 01:01	8°♄20'41			2993 May 09 22:14	0°♄	
	2988 May 28 16:41	0°♄					
	2988 Jul 23 13:53	0°♄		conjunction	2993 Jun 17 06:54	27°♄26'01	0°33'25
	2988 Sep 10 12:40	0°♄		minimum elong	2993 Jun 17 05:07	27°♄22'55	0°33'23
desc. node	2988 Sep 15 19:10	3°♄23'41			2993 Jun 20 23:11	0°♄	
	2988 Oct 25 14:14	0°♄		max. Earth dist.	2993 Jul 19 19:54	19°♄46'33	2.55632 AU
evening set	2988 Dec 05 18:28	29°♄18'05			2993 Aug 04 02:36	0°♄	

morning rise	2993 Aug 10 09:36	4°♂09'57		greatest brilliancy	2998 Oct 09 22:47	18°♀31'55	-2.8m
	2993 Sep 19 06:32	0°♍		direct	2998 Nov 09 16:39	13°♀04'30	
	2993 Nov 06 10:25	0°♊		asc. node	2998 Dec 14 08:16	20°♀04'01	
	2993 Dec 27 10:44	0°♌			2999 Jan 06 07:29	0°♎	
	2994 Feb 24 19:22	0°♏			2999 Mar 01 05:16	0°♐	
retrograde	2994 Apr 20 00:48	13°♏29'03			2999 Apr 19 06:30	0°♑	
desc. node	2994 May 08 15:22	11°♏17'30			2999 Jun 06 14:14	0°♒	
opposition	2994 May 26 02:35	5°♏50'45	0°-47'-6		2999 Jul 24 18:01	0°♓	
greatest brilliancy	2994 May 26 10:57	5°♏43'08	-1.9m	evening set	2999 Aug 30 23:02	23°♓22'52	
min. Earth dist.	2994 Jun 02 22:05	3°♏00'19	0.54177 AU		2999 Sep 10 09:32	0°♈	
	2994 Jun 12 02:33	30°♌		max. Earth dist.	2999 Oct 01 11:21	13°♈28'10	2.65563 AU
direct	2994 Jul 04 17:48	26°♌33'26					
	2994 Jul 28 07:13	0°♏		conjunction	2999 Oct 15 06:03	22°♈22'04	0°39'24
	2994 Sep 28 03:24	0°♐		minimum elong	2999 Oct 15 07:05	22°♈23'46	0°39'23
	2994 Nov 11 01:47	0°♑			2999 Oct 26 23:19	0°♌	
	2994 Dec 21 05:16	0°♒		morning rise	2999 Nov 29 02:18	21°♌56'12	
	2995 Jan 29 08:46	0°♓			2999 Dec 11 01:20	0°♏	
	2995 Mar 09 23:21	0°♎		desc. node	2999 Dec 29 13:09	12°♏37'39	
asc. node	2995 Mar 11 10:35	1°♎05'43			3000 Jan 23 12:45	0°♐	
	2995 Apr 19 22:38	0°♐			3000 Mar 06 12:29	0°♑	
	2995 Jun 01 17:53	0°♑			3000 Apr 16 08:34	0°♒	
evening set	2995 Jun 12 10:01	7°♑16'31			3000 May 26 16:14	0°♓	
	2995 Jul 16 10:16	0°♒			3000 Jul 06 17:27	0°♎	
					3000 Aug 20 09:03	0°♐	
conjunction	2995 Aug 02 15:40	11°♒16'49	1°05'27	asc. node	3000 Nov 01 07:20	29°♐19'55	
minimum elong	2995 Aug 02 14:54	11°♒15'33	1°05'26	retrograde	3000 Nov 04 22:45	29°♐25'38	
max. Earth dist.	2995 Aug 16 16:22	20°♒22'30	2.64354 AU	min. Earth dist.	3000 Dec 04 17:38	23°♐17'10	0.50679 AU
	2995 Aug 31 15:34	0°♓		opposition	3000 Dec 12 15:22	20°♐20'49	2°06'56
morning rise	2995 Sep 18 18:39	11°♓34'19		greatest brilliancy	3000 Dec 11 16:23	20°♐42'18	-2.1m
	2995 Oct 17 21:29	0°♈		direct	3001 Jan 16 01:10	12°♐53'42	
	2995 Dec 04 19:58	0°♌			3001 Mar 17 21:41	0°♑	
	2996 Jan 22 16:58	0°♏			3001 May 14 09:31	0°♒	
	2996 Mar 14 02:47	0°♐			3001 Jul 04 20:12	0°♓	
desc. node	2996 Mar 25 14:05	6°♐15'16			3001 Aug 22 19:57	0°♈	
	2996 May 16 15:44	0°♑		evening set	3001 Oct 07 05:46	29°♈02'16	
retrograde	2996 Jun 20 13:05	6°♑30'16			3001 Oct 08 17:02	0°♌	
opposition	2996 Jul 22 01:02	0°♑55'21	-5°-42'-13	max. Earth dist.	3001 Oct 27 13:10	12°♌28'06	2.58149 AU
greatest brilliancy	2996 Jul 23 20:37	0°♑22'59	-2.6m	desc. node	3001 Nov 16 11:30	25°♌56'41	
	2996 Jul 25 03:30	30°♌			3001 Nov 22 09:24	0°♏	
min. Earth dist.	2996 Jul 28 23:52	28°♐52'02	0.41160 AU				
direct	2996 Aug 24 18:49	24°♐23'03		conjunction	3001 Nov 23 06:55	0°♏37'01	0°-3'-58
	2996 Sep 23 06:35	0°♑		minimum elong	3001 Nov 23 06:44	0°♏36'42	0°03'59
	2996 Nov 18 14:30	0°♒		behind sun begin	3001 Nov 22 10:58	0°♏02'41	
	2997 Jan 01 17:14	0°♓		behind sun end	3001 Nov 24 02:29	1°♏10'44	
asc. node	2997 Jan 26 10:04	17°♀24'45			3002 Jan 03 22:46	0°♐	
	2997 Feb 13 06:13	0°♎		morning rise	3002 Jan 11 16:17	5°♐36'04	
	2997 Mar 28 08:32	0°♐			3002 Feb 13 16:26	0°♑	
	2997 May 11 18:08	0°♑			3002 Mar 25 02:45	0°♒	
	2997 Jun 26 13:25	0°♒			3002 May 02 22:09	0°♓	
evening set	2997 Jul 24 09:19	17°♒53'13			3002 Jun 11 00:09	0°♎	
	2997 Aug 12 08:54	0°♓			3002 Jul 21 12:50	0°♐	
					3002 Sep 03 08:59	0°♑	
conjunction	2997 Sep 08 23:28	17°♓33'41	1°04'38	asc. node	3002 Sep 19 07:38	9°♑57'13	
minimum elong	2997 Sep 09 00:10	17°♓34'47	1°04'37		3002 Oct 26 10:07	0°♒	
max. Earth dist.	2997 Sep 08 06:52	17°♓07'17	2.67678 AU	retrograde	3002 Dec 15 18:41	13°♒27'07	
	2997 Sep 28 12:36	0°♈		min. Earth dist.	3003 Jan 19 23:42	5°♒20'56	0.62021 AU
morning rise	2997 Oct 23 08:57	15°♈51'54		opposition	3003 Jan 24 14:36	3°♒30'20	4°21'24
	2997 Nov 14 09:08	0°♌		greatest brilliancy	3003 Jan 23 14:42	3°♒54'12	-1.5m
	2997 Dec 30 13:23	0°♏			3003 Feb 02 19:01	30°♌	
desc. node	2998 Feb 10 14:12	27°♏43'24		direct	3003 Mar 03 17:14	24°♑35'37	
	2998 Feb 14 00:28	0°♐			3003 Apr 04 20:14	0°♒	
	2998 Mar 31 00:00	0°♑			3003 Jun 11 05:21	0°♓	
	2998 May 15 04:58	0°♒			3003 Aug 02 20:09	0°♈	
	2998 Jul 02 09:55	0°♓			3003 Sep 19 21:38	0°♌	
retrograde	2998 Sep 08 19:14	24°♀14'23		desc. node	3003 Oct 04 10:08	9°♌30'10	
min. Earth dist.	2998 Oct 05 14:31	19°♀47'00	0.38578 AU		3003 Nov 03 17:41	0°♏	
opposition	2998 Oct 10 20:00	18°♀16'32	-4°-9'-58	evening set	3003 Nov 18 10:28	10°♏15'48	

max. Earth dist.	3003 Dec 02 20:34	20°♏32'03	2.46285 AU	morning rise	3008 Jul 24 14:55	17°♎32'04	
	3003 Dec 15 21:49	0°♎			3008 Aug 12 04:36	0°♏	
					3008 Sep 27 11:57	0°♐	
conjunction	3004 Jan 10 21:33	19°♎17'51	0°-51'-59		3008 Nov 15 10:08	0°♐	
minimum elong	3004 Jan 10 19:38	19°♎14'13	0°52'00		3009 Jan 08 03:07	0°♑	
	3004 Jan 25 00:09	0°♑		retrograde	3009 Apr 02 13:16	27°♑41'59	
	3004 Mar 03 17:58	0°♐		opposition	3009 May 09 21:57	19°♑29'33	0°40'52
morning rise	3004 Mar 12 12:21	6°♐52'19		greatest brilliancy	3009 May 10 04:32	19°♑23'22	-1.6m
	3004 Apr 10 22:43	0°♑		min. Earth dist.	3009 May 16 14:51	16°♑58'11	0.58710 AU
greatest brilliancy	3004 Apr 16 02:50	4°♑03'28	1.2m	desc. node	3009 May 26 06:54	13°♑39'00	
	3004 May 19 11:27	0°♐		direct	3009 Jun 19 13:56	9°♑45'29	
	3004 Jun 28 05:55	0°♑			3009 Aug 23 01:22	0°♏	
asc. node	3004 Aug 06 06:29	27°♑57'43			3009 Oct 11 01:36	0°♎	
	3004 Aug 09 05:07	0°♎			3009 Nov 21 23:06	0°♑	
	3004 Sep 23 17:59	0°♏			3009 Dec 31 06:37	0°♐	
	3004 Nov 15 21:53	0°♐			3010 Feb 07 21:27	0°♑	
retrograde	3005 Jan 18 19:22	18°♐46'52			3010 Mar 19 01:08	0°♐	
min. Earth dist.	3005 Feb 27 06:30	9°♐17'19	0.67484 AU	asc. node	3010 Mar 29 03:08	7°♐34'32	
opposition	3005 Feb 28 00:38	8°♐59'09	4°27'00		3010 Apr 28 14:16	0°♑	
greatest brilliancy	3005 Feb 27 20:00	9°♐03'48	-1.2m	evening set	3010 May 24 17:18	18°♑38'33	
	3005 Mar 29 21:32	30°♑			3010 Jun 10 00:22	0°♎	
direct	3005 Apr 09 11:39	29°♑17'03					
	3005 Apr 20 14:09	0°♐		conjunction	3010 Jul 18 00:12	25°♎44'59	0°57'29
	3005 Jul 08 17:33	0°♐		minimum elong	3010 Jul 17 22:46	25°♎42'35	0°57'29
desc. node	3005 Aug 21 08:56	25°♐01'16			3010 Jul 24 09:54	0°♏	
	3005 Aug 29 10:42	0°♑		max. Earth dist.	3010 Aug 07 15:12	9°♏21'38	2.61561 AU
	3005 Oct 14 07:38	0°♏		morning rise	3010 Sep 05 05:22	27°♏52'57	
	3005 Nov 25 14:55	0°♎			3010 Sep 08 12:39	0°♐	
	3006 Jan 04 11:54	0°♑			3010 Oct 25 23:52	0°♐	
evening set	3006 Jan 11 13:40	5°♑27'33			3010 Dec 13 18:03	0°♑	
	3006 Feb 11 22:17	0°♐			3011 Feb 02 19:39	0°♏	
					3011 Apr 02 21:12	0°♎	
conjunction	3006 Mar 18 09:59	27°♐15'59	0°-55'-49	desc. node	3011 Apr 13 05:59	4°♎08'32	
minimum elong	3006 Mar 18 12:57	27°♐21'49	0°55'49	retrograde	3011 May 25 19:50	13°♎13'21	
	3006 Mar 21 21:05	0°♑		opposition	3011 Jun 28 08:48	6°♎45'18	-3°-43'-5
max. Earth dist.	3006 Apr 24 11:58	26°♑18'39	2.37698 AU	greatest brilliancy	3011 Jun 29 22:11	6°♎14'21	-2.3m
	3006 Apr 29 06:33	0°♐		min. Earth dist.	3011 Jul 06 18:47	3°♎59'31	0.46083 AU
morning rise	3006 May 28 05:30	22°♐01'21			3011 Jul 22 05:13	30°♑	
	3006 Jun 07 22:44	0°♑		direct	3011 Aug 03 23:50	28°♏51'03	
asc. node	3006 Jun 24 04:33	11°♑53'49			3011 Aug 17 00:53	0°♎	
	3006 Jul 19 14:05	0°♎			3011 Oct 22 03:30	0°♑	
	3006 Sep 01 18:51	0°♏			3011 Dec 05 00:14	0°♐	
	3006 Oct 19 09:13	0°♐			3012 Jan 14 23:38	0°♑	
	3006 Dec 12 12:37	0°♐		asc. node	3012 Feb 14 01:10	22°♑07'17	
retrograde	3007 Feb 22 16:10	21°♐56'26			3012 Feb 24 20:26	0°♐	
opposition	3007 Apr 03 02:54	12°♐43'36	3°14'08		3012 Apr 06 19:47	0°♑	
greatest brilliancy	3007 Apr 03 14:16	12°♐32'26	-1.3m		3012 May 20 10:14	0°♎	
min. Earth dist.	3007 Apr 06 05:27	11°♐30'21	0.66349 AU		3012 Jul 04 16:28	0°♏	
direct	3007 May 14 13:34	2°♐41'28		evening set	3012 Jul 09 16:39	3°♏15'47	
desc. node	3007 Jul 09 07:31	17°♐16'23			3012 Aug 20 04:35	0°♐	
	3007 Aug 03 22:33	0°♑					
	3007 Sep 22 17:17	0°♏		conjunction	3012 Aug 26 15:15	4°♐06'56	1°08'13
	3007 Nov 05 03:12	0°♎		minimum elong	3012 Aug 26 15:28	4°♐07'18	1°08'12
	3007 Dec 15 07:27	0°♑		max. Earth dist.	3012 Aug 31 11:19	7°♐12'02	2.67036 AU
	3008 Jan 22 19:36	0°♐			3012 Oct 06 07:25	0°♐	
	3008 Feb 29 20:14	0°♑		morning rise	3012 Oct 10 16:30	2°♐46'57	
evening set	3008 Mar 22 20:17	17°♑12'42			3012 Nov 22 11:08	0°♑	
	3008 Apr 08 09:43	0°♐			3013 Jan 08 09:46	0°♏	
asc. node	3008 May 11 04:19	24°♐43'39			3013 Feb 24 08:12	0°♎	
	3008 May 18 07:46	0°♑		desc. node	3013 Feb 28 04:47	2°♎27'22	
					3013 Apr 13 01:13	0°♑	
conjunction	3008 May 27 01:57	6°♑24'21	0°10'22		3013 Jun 03 11:35	0°♐	
minimum elong	3008 May 27 01:11	6°♑22'57	0°10'21	retrograde	3013 Aug 10 13:52	22°♐24'16	
behind sun begin	3008 May 26 05:11	5°♑46'34		opposition	3013 Sep 09 16:24	17°♐24'09	-6°-27'-10
behind sun end	3008 May 27 21:11	6°♑59'19		greatest brilliancy	3013 Sep 09 19:29	17°♐22'07	-2.9m
	3008 Jun 29 03:48	0°♎		min. Earth dist.	3013 Sep 09 12:15	17°♐26'53	0.37169 AU
max. Earth dist.	3008 Jul 07 07:27	5°♎40'15	2.50882 AU	direct	3013 Oct 09 06:47	12°♐28'33	

	3013 Dec 05 16:39	0°♄		conjunction	3018 Dec 21 05:02	28°♂38'42	0°-34'-38
asc. node	3014 Jan 01 00:48	14°♄41'49		minimum elong	3018 Dec 21 03:34	28°♂36'01	0°34'37
	3014 Jan 25 23:49	0°♂			3018 Dec 23 01:46	0°♂	
	3014 Mar 13 18:17	0°♂			3019 Feb 01 09:17	0°≈	
	3014 Apr 29 05:29	0°♂		morning rise	3019 Feb 14 21:32	10°≈18'40	
	3014 Jun 15 06:32	0°♂			3019 Mar 12 08:30	0°♂	
	3014 Aug 01 18:31	0°♂			3019 Apr 19 17:38	0°♄	
evening set	3014 Aug 17 16:21	10°♂02'32			3019 May 28 09:32	0°♂	
	3014 Sep 18 03:47	0°♂			3019 Jul 07 07:35	0°♂	
max. Earth dist.	3014 Sep 23 06:57	3°♂16'20	2.67034 AU		3019 Aug 18 15:57	0°♂	
				asc. node	3019 Aug 23 22:28	3°♂34'00	
conjunction	3014 Oct 02 03:16	8°♂55'37	0°51'39		3019 Oct 04 12:54	0°♂	
minimum elong	3014 Oct 02 04:21	8°♂57'21	0°51'38		3019 Dec 05 09:32	0°♂	
	3014 Nov 03 18:42	0°♂		retrograde	3020 Jan 06 11:35	5°♂46'16	
morning rise	3014 Nov 15 09:55	7°♂36'12			3020 Feb 05 00:51	30°♂	
	3014 Dec 19 04:41	0°♂		min. Earth dist.	3020 Feb 13 09:55	26°♂45'56	0.66129 AU
desc. node	3015 Jan 16 04:02	18°♂56'05		opposition	3020 Feb 15 16:45	25°♂50'56	4°35'25
	3015 Feb 01 06:34	0°♂		greatest brilliancy	3020 Feb 15 04:10	26°♂03'34	-1.3m
	3015 Mar 16 02:26	0°≈		direct	3020 Mar 26 09:29	16°♂23'48	
	3015 Apr 26 23:51	0°♂			3020 May 20 04:42	0°♂	
	3015 Jun 07 16:37	0°♄			3020 Jul 18 15:37	0°♂	
	3015 Jul 21 04:24	0°♂			3020 Sep 06 10:13	0°♂	
	3015 Sep 13 08:40	0°♂		desc. node	3020 Sep 07 00:11	0°♂22'11	
retrograde	3015 Oct 17 11:07	7°♂29'54			3020 Oct 21 18:16	0°♂	
min. Earth dist.	3015 Nov 14 03:15	2°♂13'56	0.45356 AU		3020 Dec 02 23:10	0°♂	
asc. node	3015 Nov 19 00:49	0°♂33'03		evening set	3020 Dec 18 21:54	11°♂48'50	
	3015 Nov 20 14:45	30°♂			3021 Jan 11 21:28	0°≈	
opposition	3015 Nov 22 10:26	29°♂22'02	0°11'57	max. Earth dist.	3021 Jan 15 02:42	2°≈28'25	2.38605 AU
greatest brilliancy	3016 Jan 17 19:07	26°♂08'46	-2.9m				
direct	3015 Dec 24 23:19	22°♂46'00		conjunction	3021 Feb 17 16:39	28°≈38'30	-1°-4'-48
	3016 Jan 30 03:50	0°♂		minimum elong	3021 Feb 17 16:53	28°≈38'58	1°04'48
	3016 Apr 01 17:55	0°♂			3021 Feb 19 10:06	0°♂	
	3016 May 23 18:19	0°♂			3021 Mar 29 10:33	0°♄	
	3016 Jul 12 12:25	0°♂		morning rise	3021 Apr 28 23:46	23°♄55'14	
	3016 Aug 29 20:25	0°♂			3021 May 06 20:18	0°♂	
evening set	3016 Sep 22 11:55	15°♂02'43			3021 Jun 15 11:52	0°♂	
	3016 Oct 15 13:14	0°♂		asc. node	3021 Jul 10 21:47	18°♂30'22	
max. Earth dist.	3016 Oct 16 21:31	0°♂52'55	2.61652 AU		3021 Jul 27 03:43	0°♂	
					3021 Sep 09 14:53	0°♂	
conjunction	3016 Nov 07 10:41	15°♂10'04	0°14'31		3021 Oct 28 09:10	0°♂	
minimum elong	3016 Nov 07 11:11	15°♂10'54	0°14'31		3021 Dec 28 00:19	0°♂	
behind sun begin	3016 Nov 07 02:37	14°♂56'34		retrograde	3022 Feb 08 20:05	9°♂11'34	
behind sun end	3016 Nov 07 19:46	15°♂25'15			3022 Mar 19 23:36	30°♂	
	3016 Nov 29 08:15	0°♂		opposition	3022 Mar 20 17:26	29°♂42'19	3°50'53
desc. node	3016 Dec 03 02:44	2°♂35'12		greatest brilliancy	3022 Mar 20 23:45	29°♂36'04	-1.2m
morning rise	3016 Dec 24 09:33	17°♂22'49		min. Earth dist.	3022 Mar 22 07:38	29°♂04'26	0.67596 AU
	3017 Jan 11 04:47	0°♂		direct	3022 Apr 30 23:04	19°♂44'38	
	3017 Feb 21 08:01	0°≈			3022 Jun 15 22:49	0°♂	
	3017 Apr 02 04:33	0°♂		desc. node	3022 Jul 25 23:45	18°♂54'45	
	3017 May 11 09:59	0°♄			3022 Aug 14 16:38	0°♂	
	3017 Jun 19 22:54	0°♂			3022 Oct 01 07:11	0°♂	
	3017 Jul 31 06:09	0°♂			3022 Nov 13 02:45	0°♂	
	3017 Sep 15 08:09	0°♂			3022 Dec 23 02:19	0°≈	
asc. node	3017 Oct 05 23:24	11°♂21'36			3023 Jan 30 12:30	0°♂	
retrograde	3017 Nov 30 23:41	28°♂02'40		evening set	3023 Feb 23 07:17	18°♂48'31	
min. Earth dist.	3018 Jan 03 05:00	20°♂37'55	0.58186 AU		3023 Mar 09 11:19	0°♄	
greatest brilliancy	3018 Jan 08 01:52	18°♂43'03	-1.7m		3023 Apr 16 22:04	0°♂	
opposition	3018 Jan 09 06:18	18°♂15'01	3°50'04				
direct	3018 Feb 15 01:54	9°♂48'28		conjunction	3023 May 02 15:13	12°♂00'08	0°-17'-17
	3018 Apr 24 21:19	0°♂		minimum elong	3023 May 02 16:44	12°♂03'02	0°17'17
	3018 Jun 20 20:07	0°♂			3023 May 26 16:34	0°♂	
	3018 Aug 10 13:46	0°♂		asc. node	3023 May 28 19:41	1°♂34'10	
	3018 Sep 27 01:09	0°♂		max. Earth dist.	3023 Jun 20 19:28	18°♂15'35	2.45604 AU
desc. node	3018 Oct 21 01:07	15°♂52'41		morning rise	3023 Jul 05 12:11	28°♂40'48	
evening set	3018 Nov 01 00:03	23°♂17'37			3023 Jul 07 09:19	0°♂	
	3018 Nov 10 18:39	0°♂			3023 Aug 20 09:16	0°♂	
max. Earth dist.	3018 Nov 16 10:08	3°♂54'40	2.51351 AU		3023 Oct 05 23:32	0°♂	

	3023 Nov 25 02:29	0°♄			3029 Mar 23 14:03	0°♄	
	3024 Jan 23 04:55	0°♄			3029 May 07 13:12	0°♄	
retrograde	3024 Mar 17 00:16	13°♄18'31			3029 Jun 22 16:54	0°♄	
opposition	3024 Apr 24 09:06	4°♄38'24	1°51'25	evening set	3029 Aug 03 00:32	26°♄23'06	
greatest brilliancy	3024 Apr 24 21:52	4°♄26'06	-1.5m		3029 Aug 08 17:03	0°♄	
min. Earth dist.	3024 Apr 29 17:38	2°♄34'43	0.62465 AU	max. Earth dist.	3029 Sep 14 11:29	23°♄21'07	2.67672 AU
	3024 May 06 18:42	30°♄					
direct	3024 Jun 04 14:56	24°♄40'31		conjunction	3029 Sep 18 02:08	25°♄38'54	1°00'49
desc. node	3024 Jun 11 22:13	25°♄00'34		minimum elong	3029 Sep 18 03:02	25°♄40'20	1°00'48
	3024 Jul 05 12:43	0°♄			3029 Sep 24 22:09	0°♄	
	3024 Sep 05 09:17	0°♄		morning rise	3029 Nov 01 07:32	23°♄57'17	
	3024 Oct 20 23:42	0°♄			3029 Nov 10 16:10	0°♄	
	3024 Nov 30 21:47	0°♄			3029 Dec 26 13:14	0°♄	
	3025 Jan 08 18:15	0°♄		desc. node	3030 Feb 01 19:05	24°♄50'28	
	3025 Feb 16 01:07	0°♄			3030 Feb 09 10:50	0°♄	
	3025 Mar 26 21:06	0°♄			3030 Mar 25 12:01	0°♄	
asc. node	3025 Apr 14 19:17	14°♄16'26			3030 May 08 03:11	0°♄	
evening set	3025 May 02 11:41	27°♄21'37			3030 Jun 21 16:39	0°♄	
	3025 May 06 02:21	0°♄			3030 Aug 12 13:31	0°♄	
	3025 Jun 17 05:14	0°♄		retrograde	3030 Sep 24 13:49	11°♄20'12	
				min. Earth dist.	3030 Oct 21 02:22	6°♄45'07	0.40534 AU
conjunction	3025 Jun 29 17:10	8°♄37'44	0°43'59	greatest brilliancy	3030 Oct 27 07:32	4°♄49'49	-2.7m
minimum elong	3025 Jun 29 15:20	8°♄34'35	0°43'58	opposition	3030 Oct 28 03:28	4°♄34'21	-2°-28'-29
max. Earth dist.	3025 Jul 27 20:03	27°♄37'53	2.57958 AU		3030 Nov 15 02:09	30°♄	
	3025 Jul 31 09:32	0°♄		direct	3030 Nov 27 17:09	28°♄55'18	
morning rise	3025 Aug 20 19:31	13°♄25'59		asc. node	3030 Dec 05 16:16	29°♄20'02	
	3025 Sep 15 11:46	0°♄			3030 Dec 10 17:41	0°♄	
	3025 Nov 02 07:43	0°♄			3031 Feb 21 09:06	0°♄	
	3025 Dec 22 07:01	0°♄			3031 Apr 13 22:34	0°♄	
	3026 Feb 15 06:29	0°♄			3031 Jun 02 06:07	0°♄	
desc. node	3026 Apr 29 20:40	23°♄44'30			3031 Jul 20 21:20	0°♄	
retrograde	3026 May 02 15:46	23°♄47'22			3031 Sep 06 18:07	0°♄	
opposition	3026 Jun 06 21:56	16°♄31'28	-1°-46'-24	evening set	3031 Sep 09 03:02	1°♄30'18	
greatest brilliancy	3026 Jun 07 17:06	16°♄14'28	-2.0m	max. Earth dist.	3031 Oct 07 23:01	19°♄58'34	2.64378 AU
min. Earth dist.	3026 Jun 15 03:31	13°♄36'49	0.51388 AU		3031 Oct 23 08:45	0°♄	
direct	3026 Jul 15 16:12	7°♄37'17					
	3026 Sep 19 16:01	0°♄		conjunction	3031 Oct 24 12:48	0°♄45'55	0°30'57
	3026 Nov 05 03:18	0°♄		minimum elong	3031 Oct 24 13:43	0°♄47'25	0°30'56
	3026 Dec 16 03:01	0°♄			3031 Dec 07 08:12	0°♄	
	3027 Jan 24 17:44	0°♄		morning rise	3031 Dec 08 22:39	1°♄05'28	
asc. node	3027 Mar 02 19:07	27°♄51'51		desc. node	3031 Dec 20 18:01	9°♄10'34	
	3027 Mar 05 16:10	0°♄			3032 Jan 19 14:03	0°♄	
	3027 Apr 15 21:42	0°♄			3032 Mar 01 05:56	0°♄	
	3027 May 28 21:56	0°♄			3032 Apr 10 16:33	0°♄	
evening set	3027 Jun 23 17:53	17°♄25'31			3032 May 20 12:59	0°♄	
	3027 Jul 12 17:43	0°♄			3032 Jun 29 20:45	0°♄	
					3032 Aug 11 17:24	0°♄	
conjunction	3027 Aug 12 15:16	20°♄06'43	1°07'45		3032 Oct 03 05:31	0°♄	
minimum elong	3027 Aug 12 14:52	20°♄06'05	1°07'45	asc. node	3032 Oct 22 16:31	7°♄14'20	
max. Earth dist.	3027 Aug 23 06:23	26°♄57'14	2.65532 AU	retrograde	3032 Nov 14 21:15	10°♄45'48	
	3027 Aug 28 00:20	0°♄		min. Earth dist.	3032 Dec 15 22:23	4°♄08'32	0.53514 AU
morning rise	3027 Sep 27 20:53	19°♄40'09		greatest brilliancy	3032 Dec 22 02:30	1°♄47'11	-1.9m
	3027 Oct 14 04:17	0°♄		opposition	3032 Dec 23 06:13	1°♄20'37	2°53'57
	3027 Nov 30 18:34	0°♄			3032 Dec 26 19:42	30°♄	
	3028 Jan 17 19:21	0°♄		direct	3033 Jan 27 13:35	23°♄29'55	
	3028 Mar 07 02:02	0°♄			3033 Mar 03 10:18	0°♄	
desc. node	3028 Mar 16 19:56	5°♄44'41			3033 May 07 13:04	0°♄	
	3028 Apr 29 19:01	0°♄			3033 Jun 29 10:37	0°♄	
retrograde	3028 Jul 08 23:49	22°♄06'44			3033 Aug 17 23:26	0°♄	
opposition	3028 Aug 08 13:28	16°♄56'30	-6°-31'-1		3033 Oct 04 01:25	0°♄	
greatest brilliancy	3028 Aug 10 01:12	16°♄31'27	-2.7m	evening set	3033 Oct 15 22:24	7°♄48'57	
min. Earth dist.	3028 Aug 13 13:27	15°♄32'39	0.39010 AU	max. Earth dist.	3033 Nov 03 05:57	20°♄05'01	2.55896 AU
direct	3028 Sep 09 13:38	11°♄10'14		desc. node	3033 Nov 06 17:05	22°♄26'00	
	3028 Nov 06 20:43	0°♄			3033 Nov 17 18:24	0°♄	
	3028 Dec 25 09:40	0°♄					
asc. node	3029 Jan 17 17:24	15°♄43'48		conjunction	3033 Dec 02 21:28	10°♄30'52	0°-15'-10
	3029 Feb 07 14:12	0°♄		minimum elong	3033 Dec 02 20:50	10°♄29'47	0°15'10

behind sun begin	3033 Dec 02 13:24	10°♂16'44		min. Earth dist.	3039 Apr 14 22:14	19°♂18'04	0.65240 AU
behind sun end	3033 Dec 03 04:17	10°♂42'49		direct	3039 May 22 11:17	10°♂47'14	
	3033 Dec 30 05:41	0°♂		desc. node	3039 Jun 29 13:14	18°♂21'37	
morning rise	3034 Jan 23 03:43	17°♂32'11			3039 Jul 26 13:32	0°♂	
	3034 Feb 08 19:38	0°♂			3039 Sep 16 18:11	0°♂	
	3034 Mar 20 01:34	0°♂			3039 Oct 30 19:06	0°♂	
	3034 Apr 27 16:44	0°♂			3039 Dec 10 04:52	0°♂	
	3034 Jun 05 14:01	0°♂			3040 Jan 17 19:26	0°♂	
	3034 Jul 15 19:15	0°♂			3040 Feb 24 21:47	0°♂	
	3034 Aug 27 21:07	0°♂			3040 Apr 03 12:52	0°♂	
asc. node	3034 Sep 09 14:34	8°♂16'10		evening set	3040 Apr 07 05:52	2°♂50'05	
	3034 Oct 16 11:42	0°♂		asc. node	3040 May 01 12:17	21°♂07'27	
retrograde	3034 Dec 23 20:12	22°♂08'02			3040 May 13 12:29	0°♂	
min. Earth dist.	3035 Jan 29 01:45	13°♂41'20	0.63768 AU				
opposition	3035 Feb 01 21:01	12°♂09'58	4°31'02	conjunction	3040 Jun 09 00:35	19°♂09'13	0°24'17
greatest brilliancy	3035 Feb 01 00:45	12°♂30'16	-1.4m	minimum elong	3040 Jun 08 23:05	19°♂06'32	0°24'16
direct	3035 Mar 12 14:30	3°♂02'27			3040 Jun 24 09:56	0°♂	
	3035 Jun 04 00:12	0°♂		max. Earth dist.	3040 Jul 15 11:09	14°♂31'40	2.53586 AU
	3035 Jul 28 09:23	0°♂		morning rise	3040 Aug 03 23:37	27°♂41'48	
	3035 Sep 15 00:00	0°♂			3040 Aug 07 10:35	0°♂	
desc. node	3035 Sep 24 15:55	6°♂15'44			3040 Sep 22 14:26	0°♂	
	3035 Oct 30 00:32	0°♂			3040 Nov 10 00:00	0°♂	
evening set	3035 Nov 29 02:08	21°♂11'30			3040 Dec 31 21:33	0°♂	
	3035 Dec 11 05:27	0°♂			3041 Mar 06 15:34	0°♂	
max. Earth dist.	3035 Dec 14 19:13	2°♂37'11	2.43425 AU	retrograde	3041 Apr 12 18:25	6°♂56'55	
	3036 Jan 20 06:39	0°♂		desc. node	3041 May 16 11:56	0°♂07'10	
					3041 May 16 19:52	30°♂	
conjunction	3036 Jan 23 20:40	2°♂44'46	0°-59'-29	opposition	3041 May 19 10:55	29°♂02'13	0°-7'-42
minimum elong	3036 Jan 23 18:59	2°♂41'33	0°59'29	greatest brilliancy	3040 Nov 29 05:58	11°♂27'27	-3.4m
	3036 Feb 27 22:29	0°♂		min. Earth dist.	3041 May 26 19:02	26°♂19'18	0.56306 AU
morning rise	3036 Mar 29 02:28	23°♂44'34		direct	3041 Jun 28 14:29	19°♂30'56	
	3036 Apr 06 01:15	0°♂			3041 Aug 11 04:18	0°♂	
	3036 May 14 12:02	0°♂			3041 Oct 04 00:28	0°♂	
	3036 Jun 23 04:03	0°♂			3041 Nov 15 23:07	0°♂	
asc. node	3036 Jul 27 13:02	24°♂49'27			3041 Dec 25 16:52	0°♂	
	3036 Aug 03 22:37	0°♂			3042 Feb 02 13:55	0°♂	
	3036 Sep 17 21:55	0°♂			3042 Mar 13 22:26	0°♂	
	3036 Nov 07 18:30	0°♂		asc. node	3042 Mar 19 10:41	4°♂07'53	
retrograde	3037 Jan 26 10:53	26°♂34'48			3042 Apr 23 15:40	0°♂	
opposition	3037 Mar 07 14:18	16°♂52'38	4°16'48	evening set	3042 Jun 05 04:25	29°♂58'11	
greatest brilliancy	3037 Mar 07 13:50	16°♂53'06	-1.2m		3042 Jun 05 05:28	0°♂	
min. Earth dist.	3037 Mar 07 16:01	16°♂50'55	0.67815 AU		3042 Jul 19 17:25	0°♂	
direct	3037 Apr 17 09:16	7°♂03'57					
	3037 Jul 01 04:18	0°♂		conjunction	3042 Jul 27 16:24	5°♂14'33	1°02'44
desc. node	3037 Aug 11 14:29	22°♂38'36		minimum elong	3042 Jul 27 15:19	5°♂12'46	1°02'44
	3037 Aug 23 20:29	0°♂		max. Earth dist.	3042 Aug 13 12:36	16°♂14'24	2.63207 AU
	3037 Oct 09 06:32	0°♂			3042 Sep 03 20:36	0°♂	
	3037 Nov 20 18:19	0°♂		morning rise	3042 Sep 13 15:37	6°♂15'49	
	3037 Dec 30 16:34	0°♂			3042 Oct 21 03:56	0°♂	
evening set	3038 Jan 26 05:23	20°♂38'02			3042 Dec 08 09:37	0°♂	
	3038 Feb 07 02:58	0°♂			3043 Jan 27 01:44	0°♂	
	3038 Mar 17 01:36	0°♂			3043 Mar 21 18:58	0°♂	
				desc. node	3043 Apr 03 10:36	6°♂18'34	
conjunction	3038 Apr 04 00:32	14°♂07'08	0°-44'-19	retrograde	3043 Jun 09 20:23	26°♂16'32	
minimum elong	3038 Apr 04 03:54	14°♂13'42	0°44'18	opposition	3043 Jul 12 06:26	20°♂18'00	-4°-52'-37
	3038 Apr 24 10:55	0°♂		greatest brilliancy	3043 Jul 14 02:07	19°♂43'53	-2.5m
max. Earth dist.	3038 May 24 18:48	23°♂03'17	2.40172 AU	min. Earth dist.	3043 Jul 20 03:59	17°♂50'48	0.43261 AU
	3038 Jun 03 02:47	0°♂		direct	3043 Aug 16 09:48	13°♂07'10	
morning rise	3038 Jun 12 02:12	6°♂36'22			3043 Oct 09 20:17	0°♂	
asc. node	3038 Jun 14 13:12	8°♂24'10			3043 Nov 26 22:20	0°♂	
	3038 Jul 14 17:13	0°♂			3044 Jan 08 07:24	0°♂	
	3038 Aug 27 18:07	0°♂		asc. node	3044 Feb 04 10:01	19°♂33'25	
	3038 Oct 13 20:09	0°♂			3044 Feb 18 23:04	0°♂	
	3038 Dec 04 22:57	0°♂			3044 Apr 01 10:49	0°♂	
retrograde	3039 Mar 02 21:39	29°♂52'13			3044 May 15 10:09	0°♂	
opposition	3039 Apr 11 00:25	20°♂49'45	2°47'16		3044 Jun 29 22:13	0°♂	
greatest brilliancy	3039 Apr 11 13:19	20°♂37'09	-1.3m	evening set	3044 Jul 18 18:43	12°♂11'32	

	3044 Aug 15 13:42	0°♎			3049 Jul 24 23:52	0°♊		
					3049 Sep 07 11:21	0°♊		
conjunction	3044 Sep 03 21:52	12°♎19'21	1°06'34	asc. node	3049 Sep 26 07:35	11°♊19'34		
minimum elong	3044 Sep 03 22:23	12°♎20'12	1°06'34		3049 Nov 03 17:08	0°♊		
max. Earth dist.	3044 Sep 05 17:01	13°♎28'01	2.67497 AU	retrograde	3049 Dec 09 13:53	7°♊30'09		
	3044 Oct 01 16:46	0°♊			3050 Jan 12 03:43	30°♊		
morning rise	3044 Oct 18 12:53	10°♊43'34		min. Earth dist.	3050 Jan 12 22:04	29°♊42'01	0.60413 AU	
	3044 Nov 17 16:18	0°♊		greatest brilliancy	3050 Jan 17 02:24	28°♊02'27	-1.6m	
	3045 Jan 03 04:22	0°♊		opposition	3050 Jan 18 04:57	27°♊36'03	4°11'05	
desc. node	3045 Feb 18 10:40	0°♊08'27		direct	3050 Feb 24 18:12	18°♊53'19		
	3045 Feb 18 05:29	0°♊			3050 Apr 13 23:50	0°♊		
	3045 Apr 05 04:59	0°♊			3050 Jun 14 15:07	0°♊		
	3045 May 22 07:35	0°♊			3050 Aug 05 10:08	0°♊		
	3045 Jul 15 18:28	0°♊			3050 Sep 22 06:29	0°♊		
retrograde	3045 Aug 28 05:08	10°♊55'32		desc. node	3050 Oct 11 06:37	12°♊29'12		
min. Earth dist.	3045 Sep 24 22:46	6°♊22'59	0.37558 AU		3050 Nov 06 02:47	0°♊		
opposition	3045 Sep 28 03:06	5°♊30'47	-5°-21'-15	evening set	3050 Nov 10 17:02	3°♊10'48		
greatest brilliancy	3045 Sep 27 13:14	5°♊40'17	-2.9m	max. Earth dist.	3050 Nov 25 07:18	13°♊24'39	2.48598 AU	
direct	3045 Oct 27 15:40	0°♊33'18			3050 Dec 18 09:22	0°♊		
asc. node	3045 Dec 22 08:42	16°♊51'13						
	3046 Jan 15 23:55	0°♊		conjunction	3051 Jan 01 13:47	10°♊25'36	0°-45'-3	
	3046 Mar 06 19:14	0°♊		minimum elong	3051 Jan 01 11:57	10°♊22'13	0°45'02	
	3046 Apr 23 12:29	0°♊			3051 Jan 27 14:55	0°♊		
	3046 Jun 10 04:45	0°♊		morning rise	3051 Mar 01 09:20	25°♊15'04		
	3046 Jul 28 00:53	0°♊			3051 Mar 07 11:29	0°♊		
evening set	3046 Aug 25 20:54	18°♊08'58			3051 Apr 14 18:09	0°♊		
	3046 Sep 13 13:43	0°♊			3051 May 23 07:43	0°♊		
max. Earth dist.	3046 Sep 28 13:32	9°♊34'08	2.66328 AU		3051 Jul 02 02:21	0°♊		
					3051 Aug 13 03:15	0°♊		
conjunction	3046 Oct 10 04:15	17°♊01'41	0°44'52	asc. node	3051 Aug 14 06:43	0°♊47'11		
minimum elong	3046 Oct 10 05:21	17°♊03'26	0°44'51		3051 Sep 28 00:39	0°♊		
	3046 Oct 30 04:26	0°♊			3051 Nov 22 07:57	0°♊		
morning rise	3046 Nov 23 16:39	16°♊07'26		retrograde	3052 Jan 14 03:48	13°♊46'07		
	3046 Dec 14 10:42	0°♊		min. Earth dist.	3052 Feb 21 22:30	4°♊29'27	0.67002 AU	
desc. node	3047 Jan 06 09:54	15°♊37'02		opposition	3052 Feb 23 09:29	3°♊54'24	4°31'59	
	3047 Jan 27 04:56	0°♊		greatest brilliancy	3052 Feb 23 01:15	4°♊02'39	-1.3m	
	3047 Mar 10 13:38	0°♊			3052 Mar 04 12:47	30°♊		
	3047 Apr 20 19:58	0°♊		direct	3052 Apr 03 13:01	24°♊18'39		
	3047 May 31 15:52	0°♊			3052 May 06 20:16	0°♊		
	3047 Jul 12 11:18	0°♊			3052 Jul 12 07:04	0°♊		
	3047 Aug 28 07:17	0°♊		desc. node	3052 Aug 28 05:45	27°♊32'13		
retrograde	3047 Oct 28 22:03	20°♊51'38			3052 Sep 01 04:26	0°♊		
asc. node	3047 Nov 09 07:24	19°♊53'21			3052 Oct 16 21:20	0°♊		
min. Earth dist.	3047 Nov 26 17:12	15°♊06'31	0.48305 AU		3052 Nov 28 04:52	0°♊		
opposition	3047 Dec 04 21:53	12°♊08'38	1°23'48	evening set	3052 Dec 31 20:48	25°♊11'43		
greatest brilliancy	3047 Dec 04 05:14	12°♊23'47	-2.2m		3053 Jan 07 03:24	0°♊		
direct	3048 Jan 07 12:15	5°♊03'01			3053 Feb 14 15:03	0°♊		
	3048 Mar 24 01:52	0°♊		max. Earth dist.	3053 Feb 27 18:00	10°♊21'28	2.36989 AU	
	3048 May 17 17:41	0°♊						
	3048 Jul 07 09:32	0°♊		conjunction	3053 Mar 05 13:57	14°♊58'06	-1°-1'-37	
	3048 Aug 25 02:43	0°♊		minimum elong	3053 Mar 05 15:51	15°♊01'51	1°01'37	
evening set	3048 Sep 30 20:28	23°♊25'29			3053 Mar 24 14:25	0°♊		
	3048 Oct 10 22:40	0°♊			3053 May 01 23:23	0°♊		
max. Earth dist.	3048 Oct 22 23:08	7°♊54'54	2.59819 AU	morning rise	3053 May 15 20:15	10°♊38'37		
					3053 Jun 10 14:03	0°♊		
conjunction	3048 Nov 16 07:51	24°♊15'59	0°04'04	asc. node	3053 Jul 01 04:50	15°♊04'48		
minimum elong	3048 Nov 16 07:58	24°♊16'12	0°04'04		3053 Jul 22 04:03	0°♊		
behind sun begin	3048 Nov 15 12:37	23°♊43'20			3053 Sep 04 09:16	0°♊		
behind sun end	3048 Nov 17 03:20	24°♊49'06			3053 Oct 22 07:29	0°♊		
desc. node	3048 Nov 23 08:08	29°♊03'05			3053 Dec 17 05:37	0°♊		
	3048 Nov 24 17:20	0°♊		retrograde	3054 Feb 16 17:34	16°♊57'52		
morning rise	3049 Jan 03 11:45	27°♊52'37		opposition	3054 Mar 28 09:09	7°♊37'11	3°30'38	
	3049 Jan 06 10:49	0°♊		greatest brilliancy	3054 Mar 28 18:26	7°♊28'01	-1.2m	
	3049 Feb 16 09:33	0°♊		min. Earth dist.	3054 Mar 30 19:00	6°♊40'03	0.67030 AU	
	3049 Mar 28 00:38	0°♊			3054 Apr 19 12:13	30°♊		
	3049 May 06 00:15	0°♊		direct	3054 May 08 17:57	27°♊36'37		
	3049 Jun 14 05:58	0°♊			3054 May 29 09:43	0°♊		

desc. node	3054 Jul 16 04:24	17°♄58'28			3059 Jul 08 00:16	0°♂		
	3054 Aug 07 23:10	0°♌						
	3054 Sep 25 19:24	0°♊		conjunction	3059 Aug 21 07:23	28°♂40'11	1°08'31	
	3054 Nov 08 00:18	0°♈		minimum elong	3059 Aug 21 07:22	28°♂40'09	1°08'32	
	3054 Dec 18 03:34	0°♐			3059 Aug 23 09:14	0°♑		
	3055 Jan 25 15:11	0°♏		max. Earth dist.	3059 Aug 28 15:16	3°♑21'38	2.66478 AU	
greatest brilliancy	3055 Feb 06 18:22	9°♏34'42	1.2m	morning rise	3059 Oct 05 19:28	27°♑39'34		
	3055 Mar 04 14:48	0°♑			3059 Oct 09 12:00	0°♄		
evening set	3055 Mar 11 10:41	5°♑22'17			3059 Nov 25 20:01	0°♌		
	3055 Apr 12 02:21	0°♉			3060 Jan 12 05:15	0°♊		
					3060 Feb 29 00:46	0°♈		
conjunction	3055 May 17 09:31	26°♉40'20	0°-1'-12	desc. node	3060 Mar 07 01:38	4°♈21'14		
minimum elong	3055 May 17 09:34	26°♉40'26	0°01'12		3060 Apr 18 15:53	0°♐		
behind sun begin	3055 May 16 06:44	25°♉50'41			3060 Jun 16 09:24	0°♏		
behind sun end	3055 May 18 12:24	27°♉30'08		retrograde	3060 Jul 27 04:25	9°♏06'27		
asc. node	3055 May 19 04:34	28°♉00'02		opposition	3060 Aug 26 06:35	4°♏09'26	-6°-46'-24	
	3055 May 21 21:30	0°♐		greatest brilliancy	3060 Aug 27 01:54	3°♏56'33	-2.9m	
max. Earth dist.	3055 Jul 01 14:00	29°♐16'49	2.48563 AU	min. Earth dist.	3060 Aug 28 14:38	3°♏32'07	0.37609 AU	
	3055 Jul 02 14:38	0°♑			3060 Sep 13 07:40	30°♑		
morning rise	3055 Jul 17 05:53	10°♑10'07		direct	3060 Sep 25 15:48	28°♑58'54		
	3055 Aug 15 13:21	0°♌			3060 Oct 08 00:08	0°♏		
	3055 Sep 30 21:52	0°♑			3060 Dec 15 03:28	0°♑		
	3055 Nov 19 04:59	0°♄		asc. node	3061 Jan 08 00:54	14°♑54'48		
	3056 Jan 13 12:42	0°♌			3061 Jan 31 04:44	0°♉		
retrograde	3056 Mar 26 06:17	21°♌52'11			3061 Mar 17 11:37	0°♐		
opposition	3056 May 03 02:04	13°♌26'33	1°12'20		3061 May 02 04:06	0°♑		
greatest brilliancy	3056 May 03 12:06	13°♌17'00	-1.6m		3061 Jun 17 18:13	0°♌		
min. Earth dist.	3056 May 09 04:31	11°♌07'11	0.60494 AU		3061 Aug 04 00:26	0°♑		
desc. node	3056 Jun 02 03:13	4°♌22'51		evening set	3061 Aug 11 11:29	4°♑43'21		
direct	3056 Jun 13 01:00	3°♌35'04		max. Earth dist.	3061 Sep 19 15:18	29°♑33'45	2.67429 AU	
	3056 Aug 28 13:03	0°♊			3061 Sep 20 07:47	0°♄		
	3056 Oct 14 20:59	0°♈						
	3056 Nov 25 08:23	0°♐		conjunction	3061 Sep 26 03:27	3°♄42'32	0°55'51	
	3057 Jan 03 10:59	0°♏		minimum elong	3061 Sep 26 04:28	3°♄44'11	0°55'51	
	3057 Feb 10 21:53	0°♑			3061 Nov 06 00:24	0°♌		
	3057 Mar 21 21:23	0°♉		morning rise	3061 Nov 09 07:48	2°♌09'00		
asc. node	3057 Apr 05 03:43	10°♉44'59			3061 Dec 21 15:41	0°♊		
	3057 May 01 05:43	0°♐		desc. node	3062 Jan 23 00:41	21°♊46'30		
evening set	3057 May 15 10:04	10°♐14'02			3062 Feb 04 02:15	0°♈		
	3057 Jun 12 11:15	0°♑			3062 Mar 19 10:32	0°♐		
					3062 Apr 30 23:56	0°♏		
conjunction	3057 Jul 10 08:35	19°♑03'52	0°52'29		3062 Jun 12 16:02	0°♑		
minimum elong	3057 Jul 10 06:55	19°♑01'04	0°52'28		3062 Jul 28 05:39	0°♉		
	3057 Jul 26 17:01	0°♌		retrograde	3062 Oct 08 00:41	27°♉04'46		
max. Earth dist.	3057 Aug 03 05:40	4°♌58'45	2.60043 AU	min. Earth dist.	3062 Nov 03 22:56	22°♉09'50	0.43065 AU	
morning rise	3057 Aug 29 17:50	22°♌16'15		opposition	3062 Nov 11 23:15	19°♉31'18	0°-52'-3	
	3057 Sep 10 18:22	0°♑		greatest brilliancy	3062 Nov 11 14:08	19°♉38'52	-2.5m	
	3057 Oct 28 08:04	0°♄		asc. node	3062 Nov 26 01:06	15°♉24'30		
	3057 Dec 16 12:40	0°♌		direct	3062 Dec 13 14:59	13°♉20'43		
	3058 Feb 06 21:46	0°♊			3063 Feb 10 00:50	0°♐		
	3058 Apr 15 01:07	0°♈			3063 Apr 07 01:13	0°♑		
desc. node	3058 Apr 20 02:37	1°♈23'43			3063 May 27 17:17	0°♌		
retrograde	3058 May 15 05:27	4°♈51'41			3063 Jul 15 22:50	0°♑		
	3058 Jun 12 14:52	30°♑			3063 Sep 02 02:05	0°♄		
opposition	3058 Jun 18 14:23	28°♊01'06	-2°-51'-10	evening set	3063 Sep 17 07:48	9°♄40'36		
greatest brilliancy	3058 Jun 19 20:33	27°♊35'15	-2.2m	max. Earth dist.	3063 Oct 13 14:42	26°♄37'33	2.62980 AU	
min. Earth dist.	3058 Jun 27 02:13	25°♊07'36	0.48462 AU		3063 Oct 18 18:41	0°♌		
direct	3058 Jul 26 06:49	19°♊36'59						
	3058 Sep 06 04:48	0°♈		conjunction	3063 Nov 01 23:11	9°♌20'31	0°21'40	
	3058 Oct 28 04:37	0°♐		minimum elong	3063 Nov 01 23:54	9°♌21'41	0°21'40	
	3058 Dec 09 12:25	0°♏			3063 Dec 02 16:40	0°♊		
	3059 Jan 18 18:35	0°♑		desc. node	3063 Dec 10 23:23	5°♊40'18		
asc. node	3059 Feb 21 01:27	24°♑46'47		morning rise	3063 Dec 18 02:57	10°♊36'23		
	3059 Feb 28 03:38	0°♉			3064 Jan 14 18:03	0°♈		
	3059 Apr 10 17:16	0°♐			3064 Feb 25 03:25	0°♐		
	3059 May 23 23:57	0°♑			3064 Apr 05 06:11	0°♏		
evening set	3059 Jul 03 14:00	27°♑05'37			3064 May 14 17:34	0°♑		

	3064 Jun 23 13:06	0°♄				3069 Aug 17 23:31	0°♍		
	3064 Aug 04 07:31	0°♈				3069 Oct 04 02:48	0°♁		
	3064 Sep 21 01:03	0°♊				3069 Nov 15 20:04	0°♂		
asc. node	3064 Oct 12 23:51	10°♊55'20				3069 Dec 25 19:59	0°♌		
retrograde	3064 Nov 24 06:05	21°♊19'21				3070 Feb 02 06:35	0°♋		
min. Earth dist.	3064 Dec 26 12:49	14°♊15'01	0.56188 AU	evening set		3070 Feb 10 20:15	6°♋46'15		
greatest brilliancy	3064 Dec 31 23:14	12°♊08'08	-1.8m			3070 Mar 12 05:05	0°♐		
opposition	3065 Jan 02 04:29	11°♊39'35	3°30'08			3070 Apr 19 14:35	0°♏		
direct	3065 Feb 07 08:11	3°♊28'07							
	3065 Apr 29 20:04	0°♏		conjunction		3070 Apr 20 11:40	0°♏40'38	0°-29'-29	
	3065 Jun 23 19:25	0°♐		minimum elong		3070 Apr 20 14:15	0°♏45'36	0°29'27	
	3065 Aug 13 00:33	0°♑				3070 May 29 06:50	0°♈		
	3065 Sep 29 08:44	0°♍		asc. node		3070 Jun 04 20:09	4°♈49'56		
evening set	3065 Oct 24 22:56	16°♍56'32		max. Earth dist.		3070 Jun 10 21:44	9°♈16'07	2.43146 AU	
desc. node	3065 Oct 27 21:45	18°♍55'51		morning rise		3070 Jun 25 19:28	20°♈01'42		
max. Earth dist.	3065 Nov 10 14:20	28°♍15'05	2.53468 AU			3070 Jul 09 21:04	0°♊		
	3065 Nov 13 03:21	0°♁				3070 Aug 22 19:44	0°♏		
						3070 Oct 08 12:38	0°♐		
conjunction	3065 Dec 13 00:57	20°♁59'04	0°-26'-27			3070 Nov 28 06:20	0°♑		
minimum elong	3065 Dec 12 23:50	20°♁57'05	0°26'27			3071 Jan 30 10:55	0°♍		
	3065 Dec 25 13:24	0°♂		retrograde		3071 Mar 11 09:46	7°♍56'44		
morning rise	3066 Feb 04 13:13	0°♌23'38				3071 Apr 16 18:48	30°♌♌		
	3066 Feb 04 00:43	0°♌		opposition		3071 Apr 19 02:56	29°♌05'54	2°16'13	
	3066 Mar 15 03:18	0°♋		greatest brilliancy		3071 Apr 19 16:08	28°♌53'05	-1.4m	
	3066 Apr 22 14:56	0°♐		min. Earth dist.		3071 Apr 23 19:38	27°♌16'35	0.63835 AU	
	3066 May 31 08:31	0°♄		direct		3071 May 30 11:39	19°♌05'06		
	3066 Jul 10 08:04	0°♈		desc. node		3071 Jun 19 18:47	21°♌28'13		
	3066 Aug 21 20:47	0°♊				3071 Jul 15 21:26	0°♍		
asc. node	3066 Aug 30 22:25	6°♊03'16				3071 Sep 10 08:40	0°♁		
	3066 Oct 08 12:05	0°♏				3071 Oct 25 06:35	0°♂		
	3066 Dec 22 18:51	0°♐				3071 Dec 04 23:53	0°♌		
retrograde	3066 Dec 31 17:23	0°♐30'43				3072 Jan 12 17:52	0°♋		
	3067 Jan 09 08:55	30°♌♌				3072 Feb 19 22:10	0°♐		
min. Earth dist.	3067 Feb 06 21:47	21°♌45'11	0.65196 AU			3072 Mar 29 15:03	0°♄		
opposition	3067 Feb 09 21:25	20°♌33'20	4°35'26	evening set		3072 Apr 21 21:25	17°♌34'43		
greatest brilliancy	3067 Feb 09 05:13	20°♌49'35	-1.3m	asc. node		3072 Apr 21 19:25	17°♌31'00		
direct	3067 Mar 21 04:40	11°♌14'33				3072 May 08 16:29	0°♈		
	3067 May 26 16:17	0°♐				3072 Jun 19 15:26	0°♊		
	3067 Jul 22 16:20	0°♑							
	3067 Sep 09 23:38	0°♍		conjunction		3072 Jun 21 02:54	1°♊01'47	0°36'24	
desc. node	3067 Sep 14 20:47	3°♍07'35		minimum elong		3072 Jun 21 01:04	0°♊58'37	0°36'23	
	3067 Oct 25 05:53	0°♁		max. Earth dist.		3072 Jul 22 23:03	22°♊49'04	2.56099 AU	
	3067 Dec 06 11:58	0°♂				3072 Aug 02 16:44	0°♏		
evening set	3067 Dec 10 13:37	2°♂59'03		morning rise		3072 Aug 13 19:11	7°♏20'54		
max. Earth dist.	3067 Dec 30 02:36	17°♂31'51	2.40632 AU			3072 Sep 17 18:15	0°♐		
	3068 Jan 15 12:35	0°♌				3072 Nov 04 18:19	0°♑		
						3072 Dec 25 09:27	0°♍		
conjunction	3068 Feb 07 00:05	17°♌22'40	-1°-4'-1			3073 Feb 21 01:09	0°♁		
minimum elong	3068 Feb 06 23:16	17°♌21'04	1°04'03	retrograde		3073 Apr 23 16:21	16°♌44'22		
	3068 Feb 23 03:08	0°♋		desc. node		3073 May 06 17:09	15°♌39'51		
	3068 Apr 01 04:32	0°♐		opposition		3073 May 29 15:23	9°♌09'53	-1°-2'-8	
morning rise	3068 Apr 15 10:41	11°♐12'12		greatest brilliancy		3073 May 30 02:22	8°♌59'55	-1.9m	
	3068 May 09 14:16	0°♄		min. Earth dist.		3073 Jun 06 12:45	6°♌18'42	0.53668 AU	
	3068 Jun 18 04:55	0°♈				3073 Jul 05 07:26	30°♌♌		
asc. node	3068 Jul 17 21:57	21°♈35'21		direct		3073 Jul 08 02:10	29°♌56'49		
	3068 Jul 29 20:07	0°♊				3073 Jul 10 21:33	0°♁		
	3068 Sep 12 09:45	0°♏				3073 Sep 25 20:37	0°♂		
	3068 Oct 31 18:35	0°♐				3073 Nov 09 11:33	0°♌		
	3069 Jan 06 03:01	0°♑				3073 Dec 19 20:40	0°♋		
retrograde	3069 Feb 03 02:32	4°♑17'25				3074 Jan 28 02:15	0°♐		
	3069 Feb 28 20:02	30°♌♌				3074 Mar 08 17:08	0°♄		
opposition	3069 Mar 15 02:59	24°♌41'53	4°02'52	asc. node		3074 Mar 09 19:10	0°♌48'34		
greatest brilliancy	3069 Mar 15 06:22	24°♌38'31	-1.2m			3074 Apr 18 15:37	0°♈		
min. Earth dist.	3069 Mar 16 00:27	24°♌20'30	0.67820 AU			3074 May 31 09:33	0°♊		
direct	3069 Apr 25 04:34	14°♌47'52		evening set		3074 Jun 15 23:38	10°♊36'59		
	3069 Jun 22 05:51	0°♑				3074 Jul 15 00:29	0°♏		
desc. node	3069 Aug 01 20:20	20°♑38'36							

conjunction	3074 Aug 05 22:51	14°♏21'21	1°06'14			3079 Oct 18 08:18	0°♍	
minimum elong	3074 Aug 05 22:10	14°♏20'15	1°06'14	asc. node		3079 Oct 30 16:32	2°♍26'15	
max. Earth dist.	3074 Aug 19 05:48	22°♏57'35	2.64593 AU	retrograde		3079 Nov 08 09:48	2°♍58'45	
	3074 Aug 30 04:34	0°♎				3079 Nov 28 13:33	30°♎♐	
morning rise	3074 Sep 21 21:04	14°♎29'02		min. Earth dist.		3079 Dec 08 11:08	26°♐44'11	0.51222 AU
	3074 Oct 16 09:13	0°♎		greatest brilliancy		3079 Dec 15 04:55	24°♐12'43	-2.0m
	3074 Dec 03 05:31	0°♎		opposition		3079 Dec 16 05:46	23°♐49'21	2°20'40
	3075 Jan 20 21:09	0°♎		direct		3080 Jan 19 18:51	16°♐17'42	
	3075 Mar 12 15:45	0°♎				3080 Mar 13 02:58	0°♍	
desc. node	3075 Mar 24 16:31	6°♎42'47				3080 May 11 06:52	0°♏	
	3075 May 11 06:15	0°♎				3080 Jul 02 03:04	0°♎	
retrograde	3075 Jun 26 07:41	10°♎41'14				3080 Aug 20 07:27	0°♎	
opposition	3075 Jul 27 14:20	5°♎11'34	-5°-55'-17			3080 Oct 06 07:43	0°♎	
greatest brilliancy	3075 Jul 29 09:25	4°♎39'50	-2.6m	evening set		3080 Oct 09 08:56	1°♎59'50	
min. Earth dist.	3075 Aug 03 05:04	3°♎15'10	0.40698 AU	max. Earth dist.		3080 Oct 29 07:42	15°♎13'10	2.57734 AU
	3075 Aug 16 17:57	30°♎♐		desc. node		3080 Nov 13 13:31	25°♎31'27	
direct	3075 Aug 30 00:52	28°♎48'09				3080 Nov 20 02:30	0°♎	
	3075 Sep 12 04:38	0°♎						
	3075 Nov 16 22:21	0°♎		conjunction		3080 Nov 25 14:08	3°♎46'46	0°-6'-58
	3075 Dec 31 19:56	0°♎		minimum elong		3080 Nov 25 13:52	3°♎46'17	0°06'59
asc. node	3076 Jan 25 17:41	17°♎25'31		behind sun begin		3080 Nov 24 19:16	3°♎14'11	
	3076 Feb 12 15:26	0°♎		behind sun end		3080 Nov 26 08:27	4°♎18'24	
	3076 Mar 26 20:20	0°♎				3081 Jan 01 17:26	0°♎	
	3076 May 10 06:48	0°♎		morning rise		3081 Jan 14 07:45	9°♎08'22	
	3076 Jun 25 02:15	0°♏				3081 Feb 11 11:55	0°♎	
evening set	3076 Jul 27 14:31	20°♏52'45				3081 Mar 22 22:16	0°♎	
	3076 Aug 10 21:48	0°♎				3081 Apr 30 16:56	0°♎	
max. Earth dist.	3076 Sep 10 22:20	19°♎43'45	2.67698 AU			3081 Jun 08 17:08	0°♎	
						3081 Jul 19 02:02	0°♎	
conjunction	3076 Sep 12 02:08	20°♎27'58	1°03'37			3081 Aug 31 13:21	0°♎	
minimum elong	3076 Sep 12 02:54	20°♎29'10	1°03'37	asc. node		3081 Sep 16 14:59	10°♎10'59	
	3076 Sep 27 01:41	0°♎				3081 Oct 22 01:38	0°♏	
morning rise	3076 Oct 26 10:18	18°♎45'10		retrograde		3081 Dec 17 19:56	16°♏28'00	
	3076 Nov 12 22:19	0°♎		min. Earth dist.		3082 Jan 22 05:41	8°♏18'15	0.62390 AU
	3076 Dec 29 02:01	0°♎		opposition		3082 Jan 26 17:29	6°♏30'40	4°24'59
desc. node	3077 Feb 08 15:40	27°♎27'39		greatest brilliancy		3082 Jan 25 18:03	6°♏54'05	-1.5m
	3077 Feb 12 11:11	0°♎				3082 Feb 14 16:49	30°♎♐	
	3077 Mar 29 06:34	0°♎		direct		3082 Mar 05 23:15	27°♎33'39	
	3077 May 13 02:26	0°♎				3082 Mar 26 21:05	0°♏	
	3077 Jun 29 03:46	0°♎				3082 Jun 07 21:56	0°♎	
retrograde	3077 Sep 13 05:01	28°♎53'45				3082 Jul 31 02:56	0°♎	
min. Earth dist.	3077 Oct 09 21:14	24°♎26'47	0.38875 AU			3082 Sep 17 10:44	0°♎	
opposition	3077 Oct 15 13:16	22°♎47'27	-3°-46'-40	desc. node		3082 Oct 01 12:30	9°♎10'06	
greatest brilliancy	3077 Oct 14 15:38	23°♎03'18	-2.8m			3082 Nov 01 10:49	0°♎	
direct	3077 Nov 14 11:01	17°♎31'06		evening set		3082 Nov 20 21:07	13°♎34'12	
asc. node	3077 Dec 12 16:27	22°♎17'12		max. Earth dist.		3082 Dec 05 11:10	23°♎59'45	2.45757 AU
	3078 Jan 01 18:10	0°♎				3082 Dec 13 17:40	0°♎	
	3078 Feb 26 22:01	0°♎						
	3078 Apr 17 10:53	0°♎		conjunction		3083 Jan 13 18:15	23°♎03'31	0°-54'-5
	3078 Jun 04 23:02	0°♏		minimum elong		3083 Jan 13 16:21	22°♎59'55	0°54'04
	3078 Jul 23 05:10	0°♎				3083 Jan 22 21:38	0°♎	
evening set	3078 Sep 03 01:05	26°♎16'01				3083 Mar 02 15:57	0°♎	
	3078 Sep 08 22:26	0°♎		morning rise		3083 Mar 17 02:39	11°♎20'09	
max. Earth dist.	3078 Oct 03 22:49	15°♎59'04	2.65348 AU	greatest brilliancy		3083 Apr 06 10:51	27°♎20'08	1.2m
						3083 Apr 09 20:11	0°♎	
conjunction	3078 Oct 18 08:31	25°♎17'54	0°37'04			3083 May 18 07:26	0°♎	
minimum elong	3078 Oct 18 09:32	25°♎19'33	0°37'04			3083 Jun 26 23:22	0°♎	
	3078 Oct 25 13:43	0°♎		asc. node		3083 Aug 04 13:03	27°♎45'14	
morning rise	3078 Dec 02 06:57	24°♎59'52				3083 Aug 07 18:30	0°♎	
	3078 Dec 09 16:52	0°♎				3083 Sep 21 23:36	0°♏	
desc. node	3078 Dec 27 14:25	12°♎12'35				3083 Nov 13 02:00	0°♎	
	3079 Jan 22 04:50	0°♎		retrograde		3084 Jan 21 19:03	21°♎37'26	
	3079 Mar 05 04:29	0°♎		min. Earth dist.		3084 Mar 01 09:01	12°♎05'31	0.67589 AU
	3079 Apr 14 23:43	0°♎		opposition		3084 Mar 02 00:07	11°♎50'25	4°24'26
	3079 May 25 05:12	0°♎		greatest brilliancy		3084 Mar 01 20:13	11°♎54'19	-1.2m
	3079 Jul 05 01:06	0°♎		direct		3084 Apr 11 13:08	2°♎07'08	
	3079 Aug 18 00:23	0°♎				3084 Jul 05 08:04	0°♎	

desc. node	3084 Aug 18 11:17	24°♄55'34		conjunction	3089 Jul 20 10:31	28°♄57'13	0°59'05
	3084 Aug 26 18:34	0°♍		minimum elong	3089 Jul 20 09:10	28°♄54'59	0°59'04
	3084 Oct 11 22:33	0°♊			3089 Jul 22 00:23	0°♏	
	3084 Nov 23 09:48	0°♈		max. Earth dist.	3089 Aug 09 08:07	12°♏03'30	2.61890 AU
	3085 Jan 02 09:07	0°♐			3089 Sep 06 01:29	0°♑	
evening set	3085 Jan 14 17:54	9°♐33'01		morning rise	3089 Sep 07 09:11	0°♑50'48	
	3085 Feb 09 20:35	0°♋			3089 Oct 23 10:33	0°♊	
	3085 Mar 19 19:21	0°♑			3089 Dec 11 00:33	0°♍	
					3090 Jan 30 15:22	0°♊	
conjunction	3085 Mar 22 01:07	1°♑46'05	0°-53'-30		3090 Mar 28 17:34	0°♈	
minimum elong	3085 Mar 22 04:16	1°♑52'17	0°53'29	desc. node	3090 Apr 10 07:16	5°♈26'11	
	3085 Apr 27 03:47	0°♉		retrograde	3090 May 29 02:27	16°♈57'34	
max. Earth dist.	3085 May 03 06:53	4°♉43'15	2.38071 AU	opposition	3090 Jul 01 10:30	10°♈35'05	-3°-59'-55
morning rise	3085 May 31 16:25	26°♉14'00		greatest brilliancy	3090 Jul 03 02:07	10°♈02'43	-2.3m
	3085 Jun 05 17:58	0°♊		min. Earth dist.	3090 Jul 09 19:47	7°♈51'36	0.45550 AU
asc. node	3085 Jun 21 13:22	11°♊36'46		direct	3090 Aug 06 20:32	2°♈48'32	
	3085 Jul 17 06:27	0°♌			3090 Oct 18 12:00	0°♐	
	3085 Aug 30 07:11	0°♏			3090 Dec 02 05:26	0°♋	
	3085 Oct 16 14:25	0°♑			3091 Jan 12 11:26	0°♑	
	3085 Dec 08 20:14	0°♊		asc. node	3091 Feb 11 10:05	21°♑58'21	
retrograde	3086 Feb 24 18:27	24°♊47'26			3091 Feb 22 10:38	0°♉	
opposition	3086 Apr 05 03:28	15°♊36'12	3°06'33		3091 Apr 05 10:30	0°♊	
greatest brilliancy	3086 Apr 05 14:58	15°♊24'53	-1.3m		3091 May 19 00:31	0°♌	
min. Earth dist.	3086 Apr 08 08:46	14°♊20'15	0.66172 AU		3091 Jul 03 06:07	0°♏	
direct	3086 May 16 14:10	5°♊34'00		evening set	3091 Jul 12 23:01	6°♏19'07	
desc. node	3086 Jul 06 09:53	18°♊01'33			3091 Aug 18 17:47	0°♑	
	3086 Jul 31 10:56	0°♍					
	3086 Sep 20 02:01	0°♊		conjunction	3091 Aug 29 17:35	7°♑01'05	1°07'51
	3086 Nov 02 19:09	0°♈		minimum elong	3091 Aug 29 17:54	7°♑01'35	1°07'51
	3086 Dec 13 02:50	0°♐		max. Earth dist.	3091 Sep 02 22:47	9°♑42'24	2.67147 AU
	3087 Jan 20 16:30	0°♋			3091 Oct 04 20:21	0°♊	
	3087 Feb 27 17:21	0°♑		morning rise	3091 Oct 13 16:32	5°♊37'14	
evening set	3087 Mar 27 08:04	21°♑34'40			3091 Nov 20 23:26	0°♍	
	3087 Apr 07 06:06	0°♉			3092 Jan 06 20:05	0°♊	
asc. node	3087 May 09 12:53	24°♉23'53			3092 Feb 22 13:45	0°♈	
	3087 May 17 02:40	0°♊		desc. node	3092 Feb 26 07:15	2°♈23'21	
					3092 Apr 09 19:54	0°♐	
conjunction	3087 May 31 03:28	10°♊15'10	0°14'00		3092 May 29 20:44	0°♋	
minimum elong	3087 May 31 02:28	10°♊13'21	0°14'00	retrograde	3092 Aug 14 15:38	27°♋20'14	
behind sun begin	3087 May 30 14:07	9°♊50'58		opposition	3092 Sep 13 19:54	22°♋16'49	-6°-15'-19
behind sun end	3087 May 31 14:49	10°♊35'42		min. Earth dist.	3092 Sep 13 02:00	22°♋28'41	0.37169 AU
	3087 Jun 27 20:39	0°♌		greatest brilliancy	3092 Sep 13 19:25	22°♋17'09	-2.9m
max. Earth dist.	3087 Jul 10 14:34	8°♌51'44	2.51407 AU	direct	3092 Oct 13 09:39	17°♋22'24	
morning rise	3087 Jul 28 04:09	20°♌51'49			3092 Nov 29 21:19	0°♑	
	3087 Aug 10 18:56	0°♏		asc. node	3092 Dec 29 09:21	15°♑30'42	
	3087 Sep 25 22:57	0°♑			3093 Jan 22 14:52	0°♉	
	3087 Nov 13 15:13	0°♊			3093 Mar 10 22:31	0°♊	
	3088 Jan 05 15:08	0°♍			3093 Apr 26 14:34	0°♌	
	3088 Mar 24 11:29	0°♊			3093 Jun 12 17:41	0°♏	
retrograde	3088 Apr 04 23:00	0°♊45'45			3093 Jul 30 06:53	0°♑	
	3088 Apr 15 22:22	30°♑♍		evening set	3093 Aug 19 17:48	12°♑54'10	
opposition	3088 May 12 04:45	22°♍36'11	0°28'05		3093 Sep 15 17:18	0°♊	
greatest brilliancy	3088 May 12 09:26	22°♍31'47	-1.7m	max. Earth dist.	3093 Sep 24 20:10	5°♊48'45	2.66927 AU
min. Earth dist.	3088 May 19 00:00	20°♍03'01	0.58293 AU				
desc. node	3088 May 23 08:28	18°♍29'15		conjunction	3093 Oct 04 03:36	11°♊46'03	0°49'48
direct	3088 Jun 21 18:16	12°♍54'15		minimum elong	3093 Oct 04 04:41	11°♊47'47	0°49'48
	3088 Aug 19 00:32	0°♊			3093 Nov 01 09:22	0°♍	
	3088 Oct 08 07:58	0°♈		morning rise	3093 Nov 17 10:50	10°♍30'09	
	3088 Nov 19 13:55	0°♐			3093 Dec 16 20:06	0°♊	
	3088 Dec 29 00:42	0°♋		desc. node	3094 Jan 13 06:25	18°♊33'38	
	3089 Feb 05 16:28	0°♑			3094 Jan 29 21:59	0°♈	
	3089 Mar 16 19:50	0°♉			3094 Mar 13 16:44	0°♐	
asc. node	3089 Mar 26 10:58	7°♉14'37			3094 Apr 24 11:34	0°♋	
	3089 Apr 26 07:50	0°♊			3094 Jun 04 22:58	0°♑	
evening set	3089 May 27 12:12	22°♊13'09			3094 Jul 17 21:17	0°♉	
	3089 Jun 07 16:26	0°♌			3094 Sep 06 21:31	0°♊	
				retrograde	3094 Oct 20 07:36	11°♊31'55	

asc. node	3094 Nov 16 07:39	6°II27'19			3099 Sep 04 20:47	0°ML	
min. Earth dist.	3094 Nov 17 04:32	6°II09'47	0.45918 AU	desc. node	3099 Sep 05 02:24	0°ML08'53	
opposition	3094 Nov 25 11:15	3°II16'15	0°31'49		3099 Oct 20 10:24	0°J	
greatest brilliancy	3094 Nov 25 04:25	3°II22'15	-2.4m		3099 Dec 01 18:41	0°Z	
	3094 Dec 05 11:37	30°R8		evening set	3099 Dec 22 18:57	15°Z34'36	
direct	3094 Dec 28 05:28	26°J34'05			3100 Jan 10 18:56	0°≈	
	3095 Jan 21 06:24	0°II		max. Earth dist.	3100 Jan 22 12:17	9°≈01'58	2.38183 AU
	3095 Mar 30 06:17	0°S			3100 Feb 18 08:18	0°K	
	3095 May 21 21:43	0°Q					
	3095 Jul 10 21:30	0°M		conjunction	3100 Feb 22 03:26	2°K59'20	-1°-4'-29
	3095 Aug 28 08:48	0°A		minimum elong	3100 Feb 22 04:05	3°K00'36	1°04'30
evening set	3095 Sep 25 13:51	17°A56'23			3100 Mar 28 08:28	0°Y	
	3095 Oct 14 04:12	0°ML		morning rise	3100 May 03 18:48	28°Y30'29	
max. Earth dist.	3095 Oct 19 11:11	3°ML28'10	2.61340 AU		3100 May 05 17:06	0°J	
					3100 Jun 14 06:43	0°II	
conjunction	3095 Nov 10 14:30	18°ML10'32	0°11'42	asc. node	3100 Jul 09 05:15	18°II12'56	
minimum elong	3095 Nov 10 14:55	18°ML11'13	0°11'41		3100 Jul 25 19:37	0°S	
behind sun begin	3095 Nov 10 01:15	17°ML48'19			3100 Sep 08 02:04	0°Q	
behind sun end	3095 Nov 11 04:34	18°ML34'09			3100 Oct 26 10:03	0°M	
	3095 Nov 28 01:17	0°J			3100 Dec 23 21:11	0°A	
desc. node	3095 Dec 01 04:46	2°J09'11					
morning rise	3095 Dec 27 18:02	20°J37'06					
	3096 Jan 09 23:19	0°Z					
	3096 Feb 20 03:23	0°≈					
	3096 Mar 30 23:58	0°K					
	3096 May 09 04:24	0°Y					
	3096 Jun 17 14:44	0°J					
	3096 Jul 28 16:01	0°II					
	3096 Sep 12 01:00	0°S					
asc. node	3096 Oct 03 07:25	12°S05'49					
	3096 Nov 19 12:21	0°Q					
retrograde	3096 Dec 03 03:38	1°Q14'29					
	3096 Dec 16 06:25	30°R8					
min. Earth dist.	3097 Jan 05 14:18	23°S45'37	0.58624 AU				
greatest brilliancy	3097 Jan 10 08:19	21°S53'18	-1.6m				
opposition	3097 Jan 11 12:53	21°S25'06	3°57'07				
direct	3097 Feb 17 11:58	12°S55'32					
	3097 Apr 20 14:50	0°Q					
	3097 Jun 17 20:20	0°M					
	3097 Aug 07 22:53	0°A					
	3097 Sep 24 15:03	0°ML					
desc. node	3097 Oct 18 03:18	15°ML29'58					
evening set	3097 Nov 03 07:29	26°ML26'45					
	3097 Nov 08 11:47	0°J					
max. Earth dist.	3097 Nov 18 15:33	7°J02'23	2.50842 AU				
	3097 Dec 20 21:08	0°Z					
conjunction	3097 Dec 23 19:07	2°Z07'22	0°-37'-23				
minimum elong	3097 Dec 23 17:33	2°Z04'31	0°37'24				
	3098 Jan 30 06:02	0°≈					
morning rise	3098 Feb 18 01:14	14°≈21'56					
	3098 Mar 10 05:49	0°K					
	3098 Apr 17 14:41	0°Y					
	3098 May 26 05:21	0°J					
	3098 Jul 05 00:52	0°II					
	3098 Aug 16 04:15	0°S					
asc. node	3098 Aug 21 07:01	3°S29'07					
	3098 Oct 01 13:22	0°Q					
	3098 Nov 29 06:20	0°M					
retrograde	3099 Jan 08 11:09	8°M39'11					
	3099 Feb 14 13:20	30°R8					
min. Earth dist.	3099 Feb 15 13:07	29°Q36'14	0.66318 AU				
opposition	3099 Feb 17 16:58	28°Q44'14	4°35'00				
greatest brilliancy	3099 Feb 17 05:06	28°Q56'08	-1.3m				
direct	3099 Mar 29 12:26	19°Q15'39					
	3099 May 16 05:13	0°M					
	3099 Jul 16 15:07	0°A					

conjunction	3100 Feb 22 03:26	2°♏59'20	-1°-4'-29		3104 Sep 14 00:23	0°♐	
minimum elong	3100 Feb 22 04:05	3°♏00'36	1°04'30		3104 Oct 31 17:14	0°♐	
	3100 Mar 28 08:28	0°♐			3104 Dec 20 09:53	0°♐	
morning rise	3100 May 03 18:48	28°♐30'29			3105 Feb 12 11:01	0°♐	
	3100 May 05 17:06	0°♐		desc. node	3105 Apr 27 23:03	26°♐43'55	
	3100 Jun 14 06:43	0°♐		retrograde	3105 May 06 10:39	27°♐09'45	
asc. node	3100 Jul 09 05:15	18°♐12'56		opposition	3105 Jun 10 14:04	19°♐58'26	-2°-2'-23
	3100 Jul 25 19:37	0°♐		greatest brilliancy	3105 Jun 11 11:59	19°♐39'08	-2.0m
	3100 Sep 08 02:04	0°♐		min. Earth dist.	3105 Jun 18 22:22	17°♐02'54	0.50826 AU
	3100 Oct 26 10:03	0°♐		direct	3105 Jul 19 04:05	11°♐09'43	
	3100 Dec 23 21:11	0°♐			3105 Sep 16 14:31	0°♐	
retrograde	3101 Feb 11 21:09	12°♐01'06			3105 Nov 03 07:09	0°♐	
opposition	3101 Mar 23 17:06	2°♐33'17	3°45'11		3105 Dec 14 14:46	0°♐	
greatest brilliancy	3101 Mar 23 23:53	2°♐26'34	-1.2m		3106 Jan 23 08:26	0°♐	
min. Earth dist.	3101 Mar 25 10:18	1°♐52'27	0.67509 AU	asc. node	3106 Mar 01 01:40	27°♐35'05	
	3101 Mar 30 05:23	30°♐			3106 Mar 04 07:45	0°♐	
direct	3101 May 03 23:27	22°♐35'17			3106 Apr 14 13:08	0°♐	
	3101 Jun 11 05:28	0°♐			3106 May 27 12:39	0°♐	
desc. node	3101 Jul 24 00:59	19°♐10'01		evening set	3106 Jun 27 05:09	20°♐40'33	
	3101 Aug 12 16:01	0°♐			3106 Jul 11 07:33	0°♐	
	3101 Sep 29 18:57	0°♐					
	3101 Nov 11 20:14	0°♐		conjunction	3106 Aug 15 20:15	23°♐06'49	1°08'06
	3101 Dec 21 22:55	0°♐		minimum elong	3106 Aug 15 19:58	23°♐06'21	1°08'05
	3102 Jan 29 10:33	0°♐		max. Earth dist.	3106 Aug 25 17:01	29°♐27'23	2.65744 AU
evening set	3102 Feb 27 21:03	23°♐16'21			3106 Aug 26 13:22	0°♐	
	3102 Mar 08 09:30	0°♐		morning rise	3106 Sep 30 21:44	22°♐32'07	
	3102 Apr 15 19:17	0°♐			3106 Oct 12 16:27	0°♐	
					3106 Nov 29 05:13	0°♐	
conjunction	3102 May 07 01:01	16°♐12'17	0°-13'-21		3107 Jan 16 02:20	0°♐	
minimum elong	3102 May 07 02:11	16°♐14'30	0°13'21		3107 Mar 05 23:46	0°♐	
behind sun begin	3102 May 06 10:32	15°♐44'57		desc. node	3107 Mar 15 22:15	5°♐56'09	
behind sun end	3102 May 07 17:50	16°♐44'01			3107 Apr 27 09:50	0°♐	
	3102 May 25 12:00	0°♐		retrograde	3107 Jul 14 19:31	26°♐31'50	
asc. node	3102 May 27 04:40	1°♐15'06		opposition	3107 Aug 14 07:32	21°♐25'13	-6°-37'-41
max. Earth dist.	3102 Jun 24 19:16	22°♐00'24	2.46154 AU	greatest brilliancy	3107 Aug 15 16:44	21°♐02'11	-2.8m
	3102 Jul 06 02:20	0°♐		min. Earth dist.	3107 Aug 18 20:49	20°♐09'47	0.38675 AU
morning rise	3102 Jul 09 08:04	2°♐16'19		direct	3107 Sep 14 22:01	15°♐46'48	
	3102 Aug 18 23:18	0°♐			3107 Nov 03 13:07	0°♐	
	3102 Oct 04 09:18	0°♐			3107 Dec 24 02:45	0°♐	
	3102 Nov 23 03:17	0°♐		asc. node	3108 Jan 17 00:44	15°♐55'07	
	3103 Jan 19 15:22	0°♐			3108 Feb 06 18:51	0°♐	
retrograde	3103 Mar 21 07:07	16°♐16'02			3108 Mar 21 23:04	0°♐	
opposition	3103 Apr 28 13:07	7°♐38'24	1°40'42		3108 May 05 23:57	0°♐	
greatest brilliancy	3103 Apr 29 01:04	7°♐26'54	-1.5m		3108 Jun 21 04:27	0°♐	
min. Earth dist.	3103 May 04 00:27	5°♐32'16	0.62100 AU	evening set	3108 Aug 06 05:09	29°♐21'47	
	3103 May 21 01:36	30°♐			3108 Aug 07 05:14	0°♐	
direct	3103 Jun 08 17:22	27°♐41'48		max. Earth dist.	3108 Sep 17 01:59	25°♐56'30	2.67661 AU
desc. node	3103 Jun 10 23:26	27°♐43'44					
	3103 Jun 28 11:55	0°♐		conjunction	3108 Sep 21 04:14	28°♐32'47	0°59'29
	3103 Sep 04 05:37	0°♐		minimum elong	3108 Sep 21 05:10	28°♐34'16	0°59'28
	3103 Oct 20 10:41	0°♐			3108 Sep 23 11:01	0°♐	
	3103 Nov 30 14:25	0°♐		morning rise	3108 Nov 04 08:34	26°♐50'58	
	3104 Jan 08 13:27	0°♐			3108 Nov 09 05:35	0°♐	
	3104 Feb 15 21:09	0°♐			3108 Dec 25 02:32	0°♐	
	3104 Mar 25 16:48	0°♐		desc. node	3109 Jan 30 21:01	24°♐32'46	
asc. node	3104 Apr 13 04:10	13°♐57'04			3109 Feb 07 22:59	0°♐	
	3104 May 04 20:53	0°♐			3109 Mar 23 21:29	0°♐	
evening set	3104 May 06 13:16	1°♐13'42			3109 May 06 07:17	0°♐	
	3104 Jun 15 22:02	0°♐			3109 Jun 19 08:04	0°♐	
					3109 Aug 07 19:17	0°♐	
conjunction	3104 Jul 03 07:35	12°♐00'06	0°46'23	retrograde	3109 Sep 28 19:29	15°♐45'46	
minimum elong	3104 Jul 03 05:46	11°♐56'59	0°46'23	min. Earth dist.	3109 Oct 25 06:44	11°♐07'55	0.40973 AU
	3104 Jul 30 00:21	0°♐		opposition	3109 Nov 01 14:08	8°♐50'57	-2°-4'-41
max. Earth dist.	3104 Jul 30 17:35	0°♐28'37	2.58368 AU	greatest brilliancy	3109 Oct 31 20:22	9°♐04'53	-2.7m
morning rise	3104 Aug 24 01:14	16°♐28'15		direct	3109 Dec 02 08:53	3°♐06'06	

asc. node	3109 Dec 04 01:15	3°♄07'13		minimum elong	3115 Jan 27 23:09	6°♌45'44	1°00'57
	3110 Feb 18 12:00	0°♈			3115 Feb 26 20:17	0°♈	
	3110 Apr 11 22:40	0°♊		morning rise	3115 Apr 03 22:07	28°♈23'42	
	3110 May 31 12:52	0°♈			3115 Apr 05 23:03	0°♈	
	3110 Jul 19 07:17	0°♈			3115 May 14 08:53	0°♈	
	3110 Sep 05 06:25	0°♈			3115 Jun 22 22:53	0°♈	
evening set	3110 Sep 12 05:13	4°♈24'27		asc. node	3115 Jul 26 22:13	24°♈37'11	
max. Earth dist.	3110 Oct 10 10:45	22°♈30'36	2.64147 AU		3115 Aug 03 14:01	0°♊	
	3110 Oct 21 23:09	0°♈			3115 Sep 17 07:03	0°♈	
					3115 Nov 06 10:44	0°♈	
conjunction	3110 Oct 27 15:28	3°♈43'09	0°28'24	retrograde	3116 Jan 30 09:46	29°♈22'37	
minimum elong	3110 Oct 27 16:20	3°♈44'34	0°28'24	opposition	3116 Mar 10 13:04	19°♈41'22	4°13'05
	3110 Dec 06 00:15	0°♈		greatest brilliancy	3116 Mar 10 13:17	19°♈41'08	-1.2m
morning rise	3110 Dec 12 03:51	4°♈11'24		min. Earth dist.	3116 Mar 10 17:55	19°♈36'31	0.67841 AU
desc. node	3110 Dec 18 19:46	8°♈45'19		direct	3116 Apr 20 10:04	9°♈51'42	
	3111 Jan 18 07:08	0°♈			3116 Jun 28 09:37	0°♈	
	3111 Feb 28 23:13	0°♈		desc. node	3116 Aug 09 16:49	22°♈38'06	
	3111 Apr 10 09:12	0°♈			3116 Aug 22 02:33	0°♈	
	3111 May 20 03:51	0°♈			3116 Oct 07 20:46	0°♈	
	3111 Jun 29 07:34	0°♈			3116 Nov 19 12:45	0°♈	
	3111 Aug 10 17:55	0°♈			3116 Dec 29 13:13	0°♈	
	3111 Sep 30 04:29	0°♈		evening set	3117 Jan 30 17:11	25°♈01'57	
asc. node	3111 Oct 22 00:06	9°♈06'51			3117 Feb 06 00:34	0°♈	
retrograde	3111 Nov 19 05:13	14°♈11'45			3117 Mar 15 23:09	0°♈	
min. Earth dist.	3111 Dec 20 12:45	7°♈29'11	0.54043 AU				
opposition	3111 Dec 27 17:52	4°♈43'00	3°05'06	conjunction	3117 Apr 08 19:32	18°♈44'17	0°-40'-56
greatest brilliancy	3111 Dec 26 13:04	5°♈10'43	-1.9m	minimum elong	3117 Apr 08 22:49	18°♈50'41	0°40'56
	3112 Jan 10 09:45	30°♈			3117 Apr 23 07:34	0°♈	
direct	3112 Feb 01 04:39	26°♈48'18		max. Earth dist.	3117 May 29 22:35	27°♈47'39	2.40743 AU
	3112 Feb 24 21:15	0°♈			3117 Jun 01 21:52	0°♈	
	3112 May 05 03:26	0°♈		asc. node	3117 Jun 12 20:48	8°♈04'12	
	3112 Jun 27 14:53	0°♈		morning rise	3117 Jun 16 09:10	10°♈38'13	
	3112 Aug 16 09:30	0°♈			3117 Jul 13 10:02	0°♈	
	3112 Oct 02 15:16	0°♈			3117 Aug 26 07:42	0°♈	
evening set	3112 Oct 19 03:44	10°♈52'18			3117 Oct 12 04:12	0°♈	
desc. node	3112 Nov 04 18:21	22°♈00'51			3117 Dec 02 16:28	0°♈	
max. Earth dist.	3112 Nov 06 04:20	22°♈58'29	2.55470 AU		3118 Feb 11 19:32	0°♈	
	3112 Nov 16 11:10	0°♈		retrograde	3118 Mar 06 00:35	2°♈42'53	
					3118 Mar 26 14:52	30°♈	
conjunction	3112 Dec 06 07:08	13°♈47'27	0°-18'-11	opposition	3118 Apr 14 01:27	23°♈42'11	2°38'33
minimum elong	3112 Dec 06 06:22	13°♈46'07	0°18'12	greatest brilliancy	3118 Apr 14 14:11	23°♈29'45	-1.3m
	3112 Dec 29 00:37	0°♈		min. Earth dist.	3118 Apr 18 02:09	22°♈07'50	0.65011 AU
morning rise	3113 Jan 26 22:31	21°♈13'05		direct	3118 May 25 11:58	13°♈40'04	
	3113 Feb 07 15:57	0°♈		desc. node	3118 Jun 27 15:29	19°♈33'59	
	3113 Mar 18 22:23	0°♈			3118 Jul 23 12:37	0°♈	
	3113 Apr 26 13:05	0°♈			3118 Sep 15 00:46	0°♈	
	3113 Jun 04 08:43	0°♈			3118 Oct 29 10:39	0°♈	
	3113 Jul 14 10:36	0°♈			3118 Dec 09 00:19	0°♈	
	3113 Aug 26 05:23	0°♈			3119 Jan 16 16:30	0°♈	
asc. node	3113 Sep 07 22:23	8°♈20'56			3119 Feb 23 18:58	0°♈	
	3113 Oct 13 22:15	0°♈			3119 Apr 03 09:06	0°♈	
retrograde	3113 Dec 26 20:37	25°♈06'07		evening set	3119 Apr 12 16:23	7°♈06'08	
min. Earth dist.	3114 Feb 01 06:39	16°♈03'13	0.64064 AU	asc. node	3119 Apr 30 19:31	20°♈45'14	
opposition	3114 Feb 04 22:58	15°♈07'50	4°33'08		3119 May 13 07:06	0°♈	
greatest brilliancy	3114 Feb 04 03:19	15°♈27'31	-1.4m				
direct	3114 Mar 15 20:04	5°♈58'11		conjunction	3119 Jun 13 23:46	22°♈52'40	0°27'37
	3114 Jun 01 08:07	0°♈		minimum elong	3119 Jun 13 22:07	22°♈49'45	0°27'36
	3114 Jul 26 13:37	0°♈			3119 Jun 24 02:33	0°♈	
	3114 Sep 13 11:43	0°♈		max. Earth dist.	3119 Jul 19 16:45	17°♈39'05	2.54098 AU
desc. node	3114 Sep 22 17:14	5°♈57'06			3119 Aug 07 01:01	0°♈	
	3114 Oct 28 16:37	0°♈		morning rise	3119 Aug 08 11:08	0°♈56'48	
evening set	3114 Dec 02 18:33	24°♈44'16			3119 Sep 22 02:15	0°♈	
	3114 Dec 10 00:28	0°♈			3119 Nov 09 07:24	0°♈	
max. Earth dist.	3114 Dec 18 21:16	6°♈30'31	2.42887 AU		3119 Dec 30 17:28	0°♈	
	3115 Jan 19 03:31	0°♈			3120 Mar 01 11:06	0°♈	
				retrograde	3120 Apr 16 06:20	10°♈05'29	
conjunction	3115 Jan 28 00:41	6°♈48'39	-1°00'-57	desc. node	3120 May 14 13:44	5°♈09'24	

opposition	3120 May 22 20:31	2°♂14'13	0°-21'-41			3125 Jul 26 12:02	0°♊	
greatest brilliancy	3120 May 23 00:12	2°♂10'49	-1.8m	evening set		3125 Aug 28 22:57	21°♊02'37	
	3120 May 28 21:54	30°♊♌				3125 Sep 12 02:19	0°♊	
min. Earth dist.	3120 May 30 07:28	29°♌29'33	0.55836 AU	max. Earth dist.		3125 Oct 01 03:21	12°♊09'03	2.66153 AU
direct	3120 Jul 01 21:05	22°♌46'16						
	3120 Aug 06 06:32	0°♊		conjunction		3125 Oct 13 06:06	19°♊56'30	0°42'43
	3120 Oct 02 00:48	0°♊		minimum elong		3125 Oct 13 07:10	19°♊58'13	0°42'42
	3120 Nov 14 11:35	0°♊				3125 Oct 28 18:18	0°♌	
	3120 Dec 24 09:50	0°♊		morning rise		3125 Nov 26 20:06	19°♌08'25	
	3121 Feb 01 08:28	0°♊				3125 Dec 13 01:31	0°♊	
	3121 Mar 12 16:58	0°♊		desc. node		3126 Jan 04 10:48	15°♊12'43	
asc. node	3121 Mar 17 19:11	3°♊49'18				3126 Jan 25 20:08	0°♊	
	3121 Apr 22 09:13	0°♌				3126 Mar 09 04:30	0°♊	
	3121 Jun 03 21:31	0°♌				3126 Apr 19 09:37	0°♊	
evening set	3121 Jun 08 20:31	3°♌24'44				3126 May 30 02:35	0°♊	
	3121 Jul 18 07:53	0°♌				3126 Jul 10 14:41	0°♊	
						3126 Aug 25 08:38	0°♌	
conjunction	3121 Jul 31 01:05	8°♌22'26	1°03'51	retrograde		3126 Nov 01 11:05	24°♌34'11	
minimum elong	3121 Jul 31 00:07	8°♌20'52	1°03'51	asc. node		3126 Nov 07 16:31	24°♌16'39	
max. Earth dist.	3121 Aug 16 05:15	18°♌55'03	2.63485 AU	min. Earth dist.		3126 Nov 30 12:47	18°♌43'03	0.48849 AU
	3121 Sep 02 09:37	0°♊		opposition		3126 Dec 08 15:18	15°♌45'29	1°39'50
morning rise	3121 Sep 16 18:40	9°♊11'48		greatest brilliancy		3126 Dec 07 19:54	16°♌03'16	-2.2m
	3121 Oct 19 15:23	0°♊		direct		3127 Jan 11 08:57	8°♌34'55	
	3121 Dec 06 18:12	0°♌				3127 Mar 22 00:42	0°♌	
	3122 Jan 25 03:15	0°♊				3127 May 16 17:35	0°♌	
	3122 Mar 18 21:46	0°♊				3127 Jul 06 16:59	0°♊	
desc. node	3122 Apr 01 13:13	7°♊03'05				3127 Aug 24 14:11	0°♊	
	3122 Jun 08 05:33	0°♊		evening set		3127 Oct 04 23:09	26°♊21'58	
retrograde	3122 Jun 14 10:47	0°♊13'59				3127 Oct 10 13:04	0°♌	
	3122 Jun 20 13:03	30°♊♌		max. Earth dist.		3127 Oct 26 13:25	10°♌32'41	2.59434 AU
opposition	3122 Jul 16 14:09	24°♊21'16	-5°-8'-10					
greatest brilliancy	3122 Jul 18 10:51	23°♊46'39	-2.5m	conjunction		3127 Nov 20 13:53	27°♌22'44	0°01'05
min. Earth dist.	3122 Jul 24 06:30	21°♊59'12	0.42737 AU	minimum elong		3127 Nov 20 13:55	27°♌22'48	0°01'05
direct	3122 Aug 20 11:00	17°♊19'03		behind sun begin		3127 Nov 19 18:07	26°♌49'05	
	3122 Oct 05 13:28	0°♊		behind sun end		3127 Nov 21 09:43	27°♌56'33	
	3122 Nov 24 17:58	0°♊		desc. node		3127 Nov 22 10:03	28°♌38'07	
	3123 Jan 06 14:29	0°♊				3127 Nov 24 09:55	0°♊	
asc. node	3123 Feb 02 18:07	19°♊29'26				3128 Jan 06 04:51	0°♊	
	3123 Feb 17 10:28	0°♊		morning rise		3128 Jan 08 00:43	1°♊18'44	
	3123 Mar 31 23:48	0°♌				3128 Feb 16 04:16	0°♊	
	3123 May 14 23:23	0°♌				3128 Mar 26 19:22	0°♊	
	3123 Jun 29 11:12	0°♌				3128 May 04 18:14	0°♊	
evening set	3123 Jul 23 00:23	15°♌13'01				3128 Jun 12 22:00	0°♊	
	3123 Aug 15 02:27	0°♊				3128 Jul 23 11:39	0°♌	
						3128 Sep 05 12:12	0°♌	
conjunction	3123 Sep 08 00:15	15°♊13'51	1°05'49	asc. node		3128 Sep 24 15:28	11°♌43'51	
minimum elong	3123 Sep 08 00:50	15°♊14'47	1°05'49			3128 Oct 30 03:01	0°♌	
max. Earth dist.	3123 Sep 09 05:21	16°♊00'09	2.67558 AU	retrograde		3128 Dec 12 15:32	10°♌34'20	
	3123 Oct 01 05:27	0°♊		min. Earth dist.		3129 Jan 16 04:47	2°♌42'38	0.60820 AU
morning rise	3123 Oct 22 13:32	13°♊35'47		greatest brilliancy		3129 Jan 20 06:40	1°♌05'30	-1.5m
	3123 Nov 17 04:49	0°♌		opposition		3129 Jan 21 08:54	0°♌39'26	4°15'57
	3124 Jan 02 15:54	0°♊				3129 Jan 23 00:51	30°♊♌	
desc. node	3124 Feb 17 12:28	29°♊56'56		direct		3129 Feb 28 02:13	21°♌53'59	
	3124 Feb 17 14:20	0°♊				3129 Apr 09 07:07	0°♌	
	3124 Apr 03 07:47	0°♊				3129 Jun 12 11:20	0°♊	
	3124 May 19 19:43	0°♊				3129 Aug 03 17:53	0°♊	
	3124 Jul 10 12:29	0°♊				3129 Sep 20 19:51	0°♌	
retrograde	3124 Sep 01 19:39	15°♊43'50		desc. node		3129 Oct 09 09:17	12°♌08'39	
min. Earth dist.	3124 Sep 29 07:33	11°♊14'25	0.37718 AU			3129 Nov 04 19:51	0°♊	
greatest brilliancy	3124 Oct 02 08:52	10°♊23'36	-2.9m	evening set		3129 Nov 14 01:35	6°♊23'47	
opposition	3124 Oct 03 01:07	10°♊12'19	-5°-1'-21	max. Earth dist.		3129 Nov 28 13:34	16°♊35'43	2.48074 AU
direct	3124 Nov 01 13:37	5°♊12'31				3129 Dec 17 04:59	0°♊	
asc. node	3124 Dec 20 16:54	18°♊18'21						
	3125 Jan 12 19:38	0°♊		conjunction		3130 Jan 05 06:55	14°♊02'30	0°-47'-28
	3125 Mar 04 17:21	0°♌		minimum elong		3130 Jan 05 05:03	13°♊59'02	0°47'28
	3125 Apr 21 18:31	0°♌				3130 Jan 26 12:01	0°♊	
	3125 Jun 08 14:04	0°♌		morning rise		3130 Mar 05 19:01	29°♊32'39	

	3130 Mar 06 09:02	0° H		opposition	3135 May 07 07:12	16° M 28'43	1°00'25
	3130 Apr 13 15:12	0° Y		greatest brilliancy	3135 May 07 15:52	16° M 20'29	-1.6m
	3130 May 22 03:19	0° B		min. Earth dist.	3135 May 13 12:41	14° M 06'55	0.60114 AU
greatest brilliancy	3130 Jun 06 22:35	12° B 05'54	1.2m	desc. node	3135 Jun 01 04:55	8° M 21'27	
	3130 Jun 30 19:24	0° II		direct	3135 Jun 17 04:47	6° M 38'51	
	3130 Aug 11 16:00	0° S			3135 Aug 27 00:50	0° Z	
asc. node	3130 Aug 12 13:27	0° S 37'04			3135 Oct 14 06:28	0° Z	
	3130 Sep 26 04:27	0° Q			3135 Nov 25 00:45	0° \approx	
	3130 Nov 19 00:28	0° M			3136 Jan 03 06:05	0° H	
retrograde	3131 Jan 17 02:55	16° M 37'25			3136 Feb 10 17:43	0° Y	
min. Earth dist.	3131 Feb 25 01:29	7° M 18'08	0.67158 AU		3136 Mar 20 16:44	0° B	
opposition	3131 Feb 26 09:20	6° M 46'15	4°30'14	asc. node	3136 Apr 03 11:17	10° B 23'35	
greatest brilliancy	3131 Feb 26 01:54	6° M 53'42	-1.2m		3136 Apr 29 23:52	0° II	
	3131 Mar 17 13:50	30° R Q		evening set	3136 May 19 07:53	13° II 55'58	
direct	3131 Apr 07 15:41	27° Q 09'05			3136 Jun 11 03:49	0° S	
	3131 Apr 30 12:15	0° M					
	3131 Jul 11 01:57	0° A		conjunction	3136 Jul 13 20:51	22° S 20'27	0°54'26
desc. node	3131 Aug 27 07:55	27° A 22'39		minimum elong	3136 Jul 13 19:15	22° S 17'46	0°54'25
	3131 Aug 31 13:32	0° M			3136 Jul 25 07:52	0° Q	
	3131 Oct 16 12:47	0° Z		max. Earth dist.	3136 Aug 06 02:10	7° Q 46'43	2.60414 AU
	3131 Nov 28 00:07	0° Z		morning rise	3136 Sep 01 22:53	25° Q 16'18	
evening set	3132 Jan 05 21:10	29° Z 06'50			3136 Sep 09 07:22	0° M	
	3132 Jan 07 00:55	0° \approx			3136 Oct 26 18:31	0° A	
	3132 Feb 14 13:38	0° H			3136 Dec 14 17:58	0° M	
					3137 Feb 04 12:48	0° Z	
conjunction	3132 Mar 10 03:23	19° H 24'36	-1°00'-9		3137 Apr 08 08:08	0° Z	
minimum elong	3132 Mar 10 05:40	19° H 29'06	1°00'09	desc. node	3137 Apr 18 03:45	3° Z 16'25	
max. Earth dist.	3132 Mar 14 05:47	22° H 39'12	2.36943 AU	retrograde	3137 May 19 07:27	8° Z 25'52	
	3132 Mar 23 12:56	0° Y		opposition	3137 Jun 22 12:00	1° Z 40'28	-3°-7'-55
	3132 Apr 30 20:48	0° B		greatest brilliancy	3137 Jun 23 20:48	1° Z 12'40	-2.2m
morning rise	3132 May 20 11:29	15° B 02'08			3137 Jun 27 10:17	30° R Z	
	3132 Jun 09 09:27	0° II		min. Earth dist.	3137 Jul 01 00:49	28° Z 47'43	0.47920 AU
asc. node	3132 Jun 29 13:27	14° II 47'42		direct	3137 Jul 30 00:42	23° Z 22'54	
	3132 Jul 20 20:31	0° S			3137 Aug 31 15:11	0° Z	
	3132 Sep 02 21:25	0° Q			3137 Oct 26 00:49	0° \approx	
	3132 Oct 20 11:31	0° M			3137 Dec 07 21:49	0° H	
	3132 Dec 14 05:01	0° A			3138 Jan 17 08:36	0° Y	
retrograde	3133 Feb 19 18:21	19° A 47'23		asc. node	3138 Feb 19 10:00	24° Y 34'09	
opposition	3133 Mar 31 09:05	10° A 28'07	3°23'49		3138 Feb 26 19:09	0° B	
greatest brilliancy	3133 Mar 31 18:41	10° A 18'39	-1.3m		3138 Apr 09 08:47	0° II	
min. Earth dist.	3133 Apr 02 22:03	9° A 27'59	0.66901 AU		3138 May 22 14:45	0° S	
direct	3133 May 11 18:59	0° A 27'16		evening set	3138 Jul 06 22:20	0° Q 13'22	
desc. node	3133 Jul 14 06:16	18° A 28'00			3138 Jul 06 14:11	0° Q	
	3133 Aug 05 17:27	0° M			3138 Aug 21 22:28	0° M	
	3133 Sep 24 05:51	0° Z					
	3133 Nov 06 17:10	0° Z		conjunction	3138 Aug 24 10:55	1° M 36'49	1°08'27
	3133 Dec 16 23:38	0° \approx		minimum elong	3138 Aug 24 11:01	1° M 36'57	1°08'27
	3134 Jan 24 12:45	0° H		max. Earth dist.	3138 Aug 31 02:16	5° M 51'35	2.66624 AU
greatest brilliancy	3134 Jan 28 01:50	2° H 47'38	1.2m	morning rise	3138 Oct 08 20:18	0° A 31'05	
	3134 Mar 03 12:39	0° Y			3138 Oct 08 00:42	0° A	
evening set	3134 Mar 16 00:25	9° Y 49'06			3138 Nov 24 07:38	0° M	
	3134 Apr 10 23:29	0° B			3139 Jan 10 14:09	0° Z	
asc. node	3134 May 17 13:13	27° B 39'30			3139 Feb 27 03:14	0° Z	
	3134 May 20 17:06	0° II		desc. node	3139 Mar 06 03:26	4° Z 22'31	
					3139 Apr 17 02:02	0° \approx	
conjunction	3134 May 21 14:59	0° II 40'23	0°02'44		3139 Jun 11 11:45	0° H	
minimum elong	3134 May 21 14:47	0° II 40'00	0°02'44	retrograde	3139 Aug 02 09:32	13° H 54'46	
behind sun begin	3134 May 20 12:19	29° B 51'08		opposition	3139 Sep 01 08:46	8° H 58'12	-6°-43'-6
behind sun end	3134 May 22 17:14	1° II 28'46		greatest brilliancy	3139 Sep 02 00:34	8° H 47'44	-2.9m
	3134 Jul 01 08:05	0° S		min. Earth dist.	3139 Sep 03 04:03	8° H 29'34	0.37456 AU
max. Earth dist.	3134 Jul 05 00:15	2° S 34'31	2.49106 AU	direct	3139 Oct 01 12:38	3° H 52'29	
morning rise	3134 Jul 20 22:03	13° S 35'53			3139 Dec 12 23:49	0° Y	
	3134 Aug 14 04:02	0° Q		asc. node	3140 Jan 07 09:35	15° Y 24'35	
	3134 Sep 29 08:49	0° M			3140 Jan 30 03:24	0° B	
	3134 Nov 17 08:59	0° A			3140 Mar 15 18:35	0° II	
	3135 Jan 10 18:12	0° M			3140 Apr 30 14:19	0° S	
retrograde	3135 Mar 30 13:20	24° M 51'49			3140 Jun 16 05:47	0° Q	


























































































































	3140 Aug 02 12:50	0°♎			3145 May 30 03:43	0°♎	
evening set	3140 Aug 14 14:07	7°♎37'28			3145 Jul 09 00:28	0°♎	
	3140 Sep 18 21:04	0°♎			3145 Aug 20 07:30	0°♎	
max. Earth dist.	3140 Sep 22 06:27	2°♎09'32	2.67360 AU	asc. node	3145 Aug 29 07:07	6°♎02'58	
					3145 Oct 06 08:01	0°♎	
conjunction	3140 Sep 29 04:22	6°♎34'06	0°54'12		3145 Dec 10 14:43	0°♎	
minimum elong	3140 Sep 29 05:25	6°♎35'46	0°54'11	retrograde	3146 Jan 03 17:00	3°♎26'32	
	3140 Nov 04 14:31	0°♎			3146 Jan 26 05:36	30°♎♎	
morning rise	3140 Nov 12 08:48	5°♎02'46		min. Earth dist.	3146 Feb 10 01:47	24°♎38'06	0.65433 AU
	3140 Dec 20 06:13	0°♎		opposition	3146 Feb 12 22:20	23°♎29'28	4°36'02
desc. node	3141 Jan 21 02:37	21°♎25'33		greatest brilliancy	3146 Feb 12 06:53	23°♎44'56	-1.3m
	3141 Feb 02 16:16	0°♎		direct	3146 Mar 24 08:55	14°♎08'48	
	3141 Mar 17 22:43	0°♎			3146 May 23 08:54	0°♎	
	3141 Apr 29 08:27	0°♎			3146 Jul 20 17:31	0°♎	
	3141 Jun 10 16:52	0°♎			3146 Sep 08 10:23	0°♎	
	3141 Jul 25 08:30	0°♎		desc. node	3146 Sep 12 22:48	2°♎52'31	
	3141 Sep 28 04:38	0°♎			3146 Oct 23 21:48	0°♎	
retrograde	3141 Oct 12 01:49	1°♎21'38			3146 Dec 05 07:07	0°♎	
	3141 Oct 25 14:48	30°♎♎		evening set	3146 Dec 14 08:06	6°♎38'09	
min. Earth dist.	3141 Nov 08 03:40	26°♎21'09	0.43601 AU	max. Earth dist.	3147 Jan 03 21:21	22°♎00'18	2.40117 AU
opposition	3141 Nov 16 05:40	23°♎39'02	0°-29'-37		3147 Jan 14 09:35	0°♎	
greatest brilliancy	3141 Nov 16 00:14	23°♎43'36	-2.5m				
asc. node	3141 Nov 24 07:57	21°♎04'06		conjunction	3147 Feb 11 07:45	21°♎36'21	-1°-4'-33
direct	3141 Dec 18 03:13	17°♎21'58		minimum elong	3147 Feb 11 07:14	21°♎35'21	1°04'34
	3142 Feb 05 17:04	0°♎			3147 Feb 22 00:51	0°♎	
	3142 Apr 04 19:03	0°♎			3147 Apr 01 02:03	0°♎	
	3142 May 25 21:57	0°♎		morning rise	3147 Apr 21 07:20	15°♎53'15	
	3142 Jul 14 08:02	0°♎			3147 May 09 10:40	0°♎	
	3142 Aug 31 14:07	0°♎			3147 Jun 17 23:19	0°♎	
evening set	3142 Sep 20 09:34	12°♎34'26		asc. node	3147 Jul 17 05:48	21°♎20'12	
max. Earth dist.	3142 Oct 16 03:02	29°♎11'04	2.62702 AU		3147 Jul 29 11:27	0°♎	
	3142 Oct 17 09:01	0°♎			3147 Sep 11 19:50	0°♎	
					3147 Oct 30 16:22	0°♎	
conjunction	3142 Nov 05 02:03	12°♎19'18	0°18'58		3148 Jan 01 03:32	0°♎	
minimum elong	3142 Nov 05 02:41	12°♎20'20	0°18'57	retrograde	3148 Feb 07 02:22	7°♎07'06	
	3142 Dec 01 08:55	0°♎			3148 Mar 11 20:13	30°♎♎	
desc. node	3142 Dec 09 01:11	5°♎14'59		opposition	3148 Mar 18 02:24	27°♎32'49	3°57'58
morning rise	3142 Dec 21 09:40	13°♎46'46		greatest brilliancy	3148 Mar 18 06:23	27°♎28'52	-1.2m
	3143 Jan 13 11:41	0°♎		min. Earth dist.	3148 Mar 19 03:10	27°♎08'13	0.67785 AU
	3143 Feb 23 21:47	0°♎		direct	3148 Apr 28 05:43	17°♎38'09	
	3143 Apr 05 00:24	0°♎			3148 Jun 18 14:22	0°♎	
	3143 May 14 10:32	0°♎		desc. node	3148 Jul 30 21:30	20°♎46'02	
	3143 Jun 23 02:52	0°♎			3148 Aug 16 01:32	0°♎	
	3143 Aug 03 13:51	0°♎			3148 Oct 02 15:28	0°♎	
	3143 Sep 19 07:04	0°♎			3148 Nov 14 13:58	0°♎	
asc. node	3143 Oct 12 07:07	12°♎02'21			3148 Dec 24 16:46	0°♎	
retrograde	3143 Nov 28 11:57	24°♎39'05			3149 Feb 01 04:39	0°♎	
min. Earth dist.	3143 Dec 31 00:08	17°♎30'46	0.56672 AU	evening set	3149 Feb 15 08:41	11°♎11'40	
greatest brilliancy	3144 Jan 05 08:03	15°♎26'02	-1.7m		3149 Mar 11 03:12	0°♎	
opposition	3144 Jan 06 13:49	14°♎56'58	3°38'57		3149 Apr 18 11:44	0°♎	
direct	3144 Feb 11 21:47	6°♎42'01					
	3144 Apr 26 23:30	0°♎		conjunction	3149 Apr 25 00:46	5°♎02'16	0°-25'-40
	3144 Jun 21 20:51	0°♎		minimum elong	3149 Apr 25 03:03	5°♎06'40	0°25'40
	3144 Aug 11 09:35	0°♎			3149 May 28 02:11	0°♎	
	3144 Sep 27 22:08	0°♎		asc. node	3149 Jun 03 04:43	4°♎30'42	
desc. node	3144 Oct 25 23:53	18°♎33'28		max. Earth dist.	3149 Jun 15 10:09	13°♎26'39	2.43705 AU
evening set	3144 Oct 28 05:18	20°♎03'25		morning rise	3149 Jun 29 19:18	23°♎46'53	
	3144 Nov 11 19:49	0°♎			3149 Jul 08 14:02	0°♎	
max. Earth dist.	3144 Nov 13 14:22	1°♎13'10	2.52989 AU		3149 Aug 21 09:35	0°♎	
					3149 Oct 06 21:47	0°♎	
conjunction	3144 Dec 16 12:46	24°♎22'31	0°-29'-22		3149 Nov 26 04:45	0°♎	
minimum elong	3144 Dec 16 11:32	24°♎20'18	0°29'22		3150 Jan 25 20:20	0°♎	
	3144 Dec 24 08:03	0°♎		retrograde	3150 Mar 14 14:33	10°♎51'58	
	3145 Feb 02 20:46	0°♎		opposition	3150 Apr 22 05:59	2°♎03'19	2°06'20
morning rise	3145 Feb 08 12:49	4°♎17'33		greatest brilliancy	3150 Apr 22 18:42	1°♎51'00	-1.4m
	3145 Mar 13 23:58	0°♎		min. Earth dist.	3150 Apr 27 01:56	0°♎11'10	0.63520 AU
	3145 Apr 21 11:24	0°♎			3150 Apr 27 13:36	30°♎♎	

direct	3150 Jun 02 14:19	22°♂03'27		conjunction	3155 Sep 16 03:50	23°♂20'28	1°02'32
desc. node	3150 Jun 17 19:56	23°♂26'09		minimum elong	3155 Sep 16 04:39	23°♂21'47	1°02'32
	3150 Jul 11 07:51	0°♂			3155 Sep 26 14:59	0°♂	
	3150 Sep 08 09:26	0°♂		morning rise	3155 Oct 30 10:34	21°♂36'19	
	3150 Oct 23 19:16	0°♂			3155 Nov 12 11:51	0°♂	
	3150 Dec 03 17:37	0°♂			3155 Dec 28 15:06	0°♂	
	3151 Jan 11 13:56	0°♂		desc. node	3156 Feb 07 17:42	27°♂11'45	
	3151 Feb 18 19:00	0°♂			3156 Feb 11 22:32	0°♂	
	3151 Mar 29 11:30	0°♂			3156 Mar 27 14:08	0°♂	
asc. node	3151 Apr 21 04:20	17°♂10'41			3156 May 11 02:03	0°♂	
evening set	3151 Apr 27 02:10	21°♂35'01			3156 Jun 26 05:29	0°♂	
	3151 May 08 11:39	0°♂			3156 Aug 25 18:27	0°♂	
	3151 Jun 19 08:47	0°♂		retrograde	3156 Sep 17 15:42	3°♂29'57	
					3156 Oct 10 17:53	30°♂	
conjunction	3151 Jun 25 19:52	4°♂29'58	0°39'10	min. Earth dist.	3156 Oct 14 03:18	29°♂02'33	0.39212 AU
minimum elong	3151 Jun 25 18:00	4°♂26'44	0°39'09	greatest brilliancy	3156 Oct 19 07:54	27°♂30'48	-2.8m
max. Earth dist.	3151 Jul 26 21:45	25°♂42'05	2.56547 AU	opposition	3156 Oct 20 05:11	27°♂15'04	-3°-22'-59
	3151 Aug 02 07:58	0°♂		direct	3156 Nov 19 05:29	21°♂53'59	
morning rise	3151 Aug 18 02:34	10°♂26'17		asc. node	3156 Dec 11 01:28	24°♂49'39	
	3151 Sep 17 07:08	0°♂			3156 Dec 27 01:43	0°♂	
	3151 Nov 04 03:39	0°♂			3157 Feb 24 11:49	0°♂	
	3151 Dec 24 10:36	0°♂			3157 Apr 15 14:08	0°♂	
	3152 Feb 18 17:41	0°♂			3157 Jun 03 07:10	0°♂	
retrograde	3152 Apr 27 07:50	19°♂59'00			3157 Jul 21 15:54	0°♂	
desc. node	3152 May 04 19:33	19°♂38'00		evening set	3157 Sep 06 03:11	29°♂09'21	
opposition	3152 Jun 02 04:09	12°♂28'45	-1°-17'-15		3157 Sep 07 11:10	0°♂	
greatest brilliancy	3152 Jun 02 17:49	12°♂16'27	-1.9m	max. Earth dist.	3157 Oct 06 12:07	18°♂32'49	2.65152 AU
min. Earth dist.	3152 Jun 10 05:12	9°♂35'32	0.53125 AU				
direct	3152 Jul 11 12:16	3°♂20'03		conjunction	3157 Oct 21 10:25	28°♂12'46	0°34'42
	3152 Sep 23 09:45	0°♂		minimum elong	3157 Oct 21 11:23	28°♂14'21	0°34'41
	3152 Nov 07 19:33	0°♂			3157 Oct 24 04:14	0°♂	
	3152 Dec 18 10:42	0°♂		morning rise	3157 Dec 05 10:50	28°♂01'54	
	3153 Jan 26 18:37	0°♂			3157 Dec 08 08:48	0°♂	
	3153 Mar 07 10:10	0°♂		desc. node	3157 Dec 25 16:16	11°♂47'45	
asc. node	3153 Mar 08 02:07	0°♂29'47			3158 Jan 20 21:29	0°♂	
	3153 Apr 17 08:19	0°♂			3158 Mar 03 21:06	0°♂	
	3153 May 30 01:25	0°♂			3158 Apr 13 15:23	0°♂	
evening set	3153 Jun 19 12:55	13°♂55'51			3158 May 23 18:38	0°♂	
	3153 Jul 13 15:18	0°♂			3158 Jul 03 09:28	0°♂	
					3158 Aug 15 18:33	0°♂	
conjunction	3153 Aug 09 04:49	17°♂22'42	1°06'53		3158 Oct 10 18:13	0°♂	
minimum elong	3153 Aug 09 04:16	17°♂21'47	1°06'53	asc. node	3158 Oct 29 00:31	5°♂11'43	
max. Earth dist.	3153 Aug 21 19:23	25°♂31'40	2.64838 AU	retrograde	3158 Nov 11 19:09	6°♂31'24	
	3153 Aug 28 18:19	0°♂		min. Earth dist.	3158 Dec 12 02:52	0°♂11'47	0.51768 AU
morning rise	3153 Sep 24 22:11	17°♂20'28			3158 Dec 12 15:39	30°♂	
	3153 Oct 14 21:48	0°♂		opposition	3158 Dec 19 19:44	27°♂17'42	2°33'48
	3153 Dec 01 16:04	0°♂		greatest brilliancy	3158 Dec 18 17:11	27°♂42'46	-2.0m
	3154 Jan 19 02:58	0°♂		direct	3159 Jan 23 12:20	19°♂41'38	
	3154 Mar 10 08:37	0°♂			3159 Mar 09 17:04	0°♂	
desc. node	3154 Mar 22 18:57	7°♂04'17			3159 May 10 01:42	0°♂	
	3154 May 06 08:32	0°♂			3159 Jul 01 08:36	0°♂	
retrograde	3154 Jun 30 23:22	14°♂51'30			3159 Aug 19 17:58	0°♂	
opposition	3154 Aug 01 03:10	9°♂26'41	-6°-7'-1		3159 Oct 05 21:41	0°♂	
greatest brilliancy	3154 Aug 02 21:15	8°♂55'59	-2.7m	evening set	3159 Oct 13 13:19	5°♂00'29	
min. Earth dist.	3154 Aug 07 09:49	7°♂37'27	0.40257 AU	max. Earth dist.	3159 Nov 02 00:53	17°♂56'55	2.57342 AU
direct	3154 Sep 03 04:31	3°♂12'03		desc. node	3159 Nov 12 15:08	25°♂06'27	
	3154 Nov 14 00:44	0°♂			3159 Nov 19 19:12	0°♂	
	3154 Dec 29 20:56	0°♂					
asc. node	3155 Jan 24 00:49	17°♂27'30		conjunction	3159 Nov 29 21:55	6°♂58'20	0°-9'-59
	3155 Feb 10 23:38	0°♂		minimum elong	3159 Nov 29 21:31	6°♂57'39	0°09'59
	3155 Mar 26 07:23	0°♂		behind sun begin	3159 Nov 29 05:12	6°♂29'23	
	3155 May 09 18:55	0°♂		behind sun end	3159 Nov 30 13:50	7°♂25'57	
	3155 Jun 24 14:45	0°♂			3160 Jan 01 12:08	0°♂	
evening set	3155 Jul 31 19:30	23°♂51'50		morning rise	3160 Jan 18 23:08	12°♂40'45	
	3155 Aug 10 10:41	0°♂			3160 Feb 11 07:49	0°♂	
max. Earth dist.	3155 Sep 14 09:49	22°♂13'41	2.67732 AU		3160 Mar 21 18:29	0°♂	
					3160 Apr 29 12:32	0°♂	

	3160 Jun 07 10:55	0°♄			3165 Dec 11 22:23	0°♁		
	3160 Jul 17 16:02	0°♂			3166 Jan 19 13:31	0°♁		
	3160 Aug 29 19:00	0°♄			3166 Feb 26 14:27	0°♁		
asc. node	3160 Sep 14 22:44	10°♄22'53		evening set	3166 Mar 31 22:05	26°♁00'46		
	3160 Oct 19 00:52	0°♂			3166 Apr 06 02:18	0°♄		
retrograde	3160 Dec 20 20:52	19°♂29'24		asc. node	3166 May 07 19:32	24°♄01'02		
min. Earth dist.	3161 Jan 25 11:47	11°♂16'08	0.62732 AU		3166 May 15 21:14	0°♂		
opposition	3161 Jan 29 20:29	9°♂31'45	4°28'17					
greatest brilliancy	3161 Jan 28 21:36	9°♂54'34	-1.4m	conjunction	3166 Jun 04 06:44	14°♂09'06	0°17'41	
direct	3161 Mar 09 06:25	0°♂32'11		minimum elong	3166 Jun 04 05:31	14°♂06'54	0°17'40	
	3161 Jun 05 11:08	0°♄			3166 Jun 26 13:13	0°♄		
	3161 Jul 29 08:05	0°♂		max. Earth dist.	3166 Jul 13 20:33	12°♄01'32	2.51953 AU	
	3161 Sep 15 22:27	0°♂		morning rise	3166 Jul 31 18:10	24°♄12'55		
desc. node	3161 Sep 29 13:56	8°♂50'55			3166 Aug 09 09:10	0°♂		
	3161 Oct 31 02:36	0°♄			3166 Sep 24 10:15	0°♄		
evening set	3161 Nov 24 10:34	17°♄00'01			3166 Nov 11 21:18	0°♂		
max. Earth dist.	3161 Dec 09 02:47	27°♄31'59	2.45221 AU		3167 Jan 03 06:34	0°♂		
	3161 Dec 12 12:17	0°♄			3167 Mar 13 14:20	0°♄		
				retrograde	3167 Apr 09 08:12	3°♄49'54		
conjunction	3162 Jan 17 17:36	26°♄56'38	0°-56'-3		3167 May 04 02:50	30°♂♂		
minimum elong	3162 Jan 17 15:45	26°♄53'08	0°56'04	opposition	3167 May 16 12:12	25°♂43'25	0°14'59	
	3162 Jan 21 18:07	0°♁		greatest brilliancy	3167 May 06 16:20	29°♂12'07	-1.7m	
	3162 Mar 01 13:23	0°♁		desc. node	3167 May 22 10:17	23°♂30'30		
morning rise	3162 Mar 21 18:11	15°♁51'21		min. Earth dist.	3167 May 23 11:08	23°♂07'36	0.57861 AU	
greatest brilliancy	3162 Mar 28 00:21	20°♁46'42	1.2m	direct	3167 Jun 26 00:19	16°♂03'57		
	3162 Apr 08 17:37	0°♁			3167 Aug 16 14:58	0°♄		
	3162 May 17 03:53	0°♄			3167 Oct 07 12:57	0°♄		
	3162 Jun 25 17:39	0°♂			3167 Nov 19 04:24	0°♁		
asc. node	3162 Aug 02 22:39	27°♂35'58			3167 Dec 28 18:51	0°♁		
	3162 Aug 06 09:01	0°♄			3168 Feb 05 11:47	0°♁		
	3162 Sep 20 06:54	0°♂			3168 Mar 15 14:52	0°♄		
	3162 Nov 10 11:32	0°♄		asc. node	3168 Mar 24 19:14	6°♄54'50		
retrograde	3163 Jan 24 17:32	24°♄26'54			3168 Apr 25 01:41	0°♂		
opposition	3163 Mar 05 23:14	14°♄40'43	4°21'33	evening set	3168 May 31 07:01	25°♂46'51		
min. Earth dist.	3163 Mar 05 11:35	14°♄52'20	0.67662 AU		3168 Jun 06 08:38	0°♄		
greatest brilliancy	3163 Mar 05 20:07	14°♄43'49	-1.2m		3168 Jul 20 14:54	0°♂		
direct	3163 Apr 15 14:51	4°♄56'09						
	3163 Jul 03 19:26	0°♂		conjunction	3168 Jul 23 20:59	2°♂09'26	1°00'33	
desc. node	3163 Aug 17 13:06	24°♂51'01		minimum elong	3168 Jul 23 19:43	2°♂07'21	1°00'33	
	3163 Aug 26 01:20	0°♂		max. Earth dist.	3168 Aug 12 04:25	14°♂50'43	2.62214 AU	
	3163 Oct 11 12:36	0°♄			3168 Sep 04 14:26	0°♄		
	3163 Nov 23 03:46	0°♄		morning rise	3168 Sep 10 13:25	3°♄49'09		
	3164 Jan 02 05:19	0°♁			3168 Oct 21 21:38	0°♂		
evening set	3164 Jan 20 02:12	13°♁48'57			3168 Dec 09 08:05	0°♂		
	3164 Feb 09 17:47	0°♁			3169 Jan 28 13:40	0°♄		
	3164 Mar 18 16:35	0°♁			3169 Mar 25 03:18	0°♄		
				desc. node	3169 Apr 08 09:30	6°♄33'14		
conjunction	3164 Mar 26 20:17	6°♁25'55	0°-50'-49	retrograde	3169 Jun 02 12:35	20°♄43'48		
minimum elong	3164 Mar 26 23:35	6°♁32'26	0°50'49	opposition	3169 Jul 05 13:47	14°♄27'02	-4°-16'-30	
	3164 Apr 26 00:14	0°♄		greatest brilliancy	3169 Jul 07 07:20	13°♄53'22	-2.4m	
max. Earth dist.	3164 May 11 08:57	11°♄48'04	2.38558 AU	min. Earth dist.	3169 Jul 13 20:19	11°♄46'56	0.44996 AU	
	3164 Jun 04 12:53	0°♂		direct	3169 Aug 10 17:57	6°♄48'16		
morning rise	3164 Jun 05 03:58	0°♂28'02			3169 Oct 15 13:43	0°♁		
asc. node	3164 Jun 19 21:25	11°♂18'25			3169 Nov 30 08:25	0°♁		
	3164 Jul 15 23:02	0°♄			3170 Jan 10 22:01	0°♁		
	3164 Aug 28 20:15	0°♂		asc. node	3170 Feb 09 18:27	21°♁49'56		
	3164 Oct 14 21:08	0°♄			3170 Feb 21 00:09	0°♄		
	3164 Dec 06 08:30	0°♂			3170 Apr 04 00:53	0°♂		
retrograde	3165 Feb 27 19:33	27°♂37'00			3170 May 17 14:43	0°♄		
opposition	3165 Apr 08 03:30	18°♂27'25	2°58'41		3170 Jul 01 19:44	0°♂		
greatest brilliancy	3165 Apr 08 15:06	18°♂16'02	-1.3m	evening set	3170 Jul 16 06:20	9°♂23'42		
min. Earth dist.	3165 Apr 11 12:18	17°♂08'14	0.65987 AU		3170 Aug 17 06:56	0°♄		
direct	3165 May 19 15:02	8°♂25'14						
desc. node	3165 Jul 04 11:57	18°♂52'18		conjunction	3170 Sep 01 20:51	9°♄56'49	1°07'22	
	3165 Jul 28 19:54	0°♂		minimum elong	3170 Sep 01 21:15	9°♄57'28	1°07'23	
	3165 Sep 18 10:17	0°♄		max. Earth dist.	3170 Sep 05 09:57	12°♄12'25	2.67245 AU	
	3165 Nov 01 11:07	0°♄			3170 Oct 03 09:13	0°♂		

morning rise	3170 Oct 16 17:42	8°♄29'28		retrograde	3175 Dec 07 07:03	4°♂23'26	
	3170 Nov 19 11:51	0°♌			3176 Jan 01 08:26	30°♌♄	
	3171 Jan 05 07:02	0°♊		min. Earth dist.	3176 Jan 09 22:57	26°♄50'44	0.59073 AU
	3171 Feb 20 20:53	0°♈		opposition	3176 Jan 15 18:48	24°♄32'56	4°03'25
desc. node	3171 Feb 24 08:46	2°♈15'02		greatest brilliancy	3176 Jan 14 14:21	25°♄01'00	-1.6m
	3171 Apr 08 18:13	0°♍		direct	3176 Feb 21 22:33	16°♄00'13	
	3171 May 27 17:32	0°♋			3176 Apr 17 00:33	0°♂	
	3171 Aug 02 02:26	0°♑			3176 Jun 15 19:14	0°♎	
retrograde	3171 Aug 20 11:41	2°♑10'06			3176 Aug 06 07:19	0°♊	
	3171 Sep 08 01:54	30°♌♋			3176 Sep 23 04:32	0°♌	
opposition	3171 Sep 19 20:38	27°♋03'01	-6°-1'-38	desc. node	3176 Oct 16 05:44	15°♌08'21	
min. Earth dist.	3171 Sep 18 12:32	27°♋24'29	0.37174 AU	evening set	3176 Nov 06 14:57	29°♌36'26	
greatest brilliancy	3171 Sep 19 16:40	27°♋05'40	-2.9m		3176 Nov 07 04:41	0°♊	
direct	3171 Oct 19 09:59	22°♋09'11		max. Earth dist.	3176 Nov 21 15:13	10°♊00'38	2.50327 AU
	3171 Nov 24 18:26	0°♑			3176 Dec 19 16:22	0°♈	
asc. node	3171 Dec 28 17:06	16°♑25'20					
	3172 Jan 21 02:14	0°♉		conjunction	3176 Dec 27 10:03	5°♈38'19	0°-40'-5
	3172 Mar 09 01:09	0°♈		minimum elong	3176 Dec 27 08:24	5°♈35'17	0°40'05
	3172 Apr 24 22:41	0°♄			3177 Jan 29 02:37	0°♍	
	3172 Jun 11 04:13	0°♂		morning rise	3177 Feb 22 07:18	18°♍30'53	
	3172 Jul 28 18:48	0°♎			3177 Mar 09 02:48	0°♋	
evening set	3172 Aug 22 20:57	15°♎48'59			3177 Apr 16 11:10	0°♑	
	3172 Sep 14 06:19	0°♊			3177 May 25 00:24	0°♉	
max. Earth dist.	3172 Sep 27 12:13	8°♊26'25	2.66792 AU		3177 Jul 03 17:19	0°♈	
					3177 Aug 14 15:59	0°♄	
conjunction	3172 Oct 07 05:51	14°♊40'27	0°47'50	asc. node	3177 Aug 19 13:43	3°♄21'51	
minimum elong	3172 Oct 07 06:56	14°♊42'11	0°47'50		3177 Sep 29 14:32	0°♂	
	3172 Oct 30 23:24	0°♌			3177 Nov 25 00:51	0°♎	
morning rise	3172 Nov 20 14:00	13°♌29'02		retrograde	3178 Jan 11 10:10	11°♎32'07	
	3172 Dec 15 10:49	0°♊		min. Earth dist.	3178 Feb 18 16:59	2°♎26'08	0.66522 AU
desc. node	3173 Jan 11 06:56	18°♊09'10		opposition	3178 Feb 20 17:16	1°♎37'50	4°34'12
	3173 Jan 28 12:46	0°♈		greatest brilliancy	3178 Feb 20 06:16	1°♎48'50	-1.3m
	3173 Mar 12 06:48	0°♍			3178 Feb 24 19:57	30°♌♂	
	3173 Apr 22 23:47	0°♋		direct	3178 Apr 01 15:58	22°♂07'29	
	3173 Jun 03 07:06	0°♑			3178 May 11 13:32	0°♎	
	3173 Jul 15 18:43	0°♉			3178 Jul 14 12:47	0°♊	
	3173 Sep 02 16:17	0°♈		desc. node	3178 Sep 03 04:13	29°♊56'34	
retrograde	3173 Oct 23 23:52	15°♈25'55			3178 Sep 03 06:25	0°♌	
asc. node	3173 Nov 14 16:26	12°♈02'11			3178 Oct 19 01:54	0°♊	
min. Earth dist.	3173 Nov 21 03:15	9°♈58'10	0.46454 AU		3178 Nov 30 13:46	0°♈	
opposition	3173 Nov 29 09:17	7°♈03'17	0°50'27	evening set	3178 Dec 26 16:25	19°♈22'08	
greatest brilliancy	3173 Nov 28 22:37	7°♈12'44	-2.3m		3179 Jan 09 16:12	0°♍	
direct	3174 Jan 01 06:47	0°♈15'46		max. Earth dist.	3179 Jan 29 16:32	15°♍27'13	2.37815 AU
	3174 Mar 27 15:44	0°♄			3179 Feb 17 06:33	0°♋	
	3174 May 20 00:07	0°♂					
	3174 Jul 09 05:54	0°♎		conjunction	3179 Feb 26 14:51	7°♋21'48	-1°-3'-55
	3174 Aug 26 20:37	0°♊		minimum elong	3179 Feb 26 15:52	7°♋23'48	1°03'56
evening set	3174 Sep 28 16:31	20°♊52'05			3179 Mar 27 06:32	0°♑	
	3174 Oct 12 18:33	0°♌			3179 May 04 13:57	0°♉	
max. Earth dist.	3174 Oct 22 00:07	6°♌03'09	2.60983 AU	morning rise	3179 May 08 13:45	3°♉05'05	
					3179 Jun 13 01:26	0°♈	
conjunction	3174 Nov 13 19:41	21°♌14'36	0°08'49	asc. node	3179 Jul 07 13:25	17°♈57'05	
minimum elong	3174 Nov 13 20:00	21°♌15'08	0°08'47		3179 Jul 24 11:13	0°♄	
behind sun begin	3174 Nov 13 03:20	20°♌47'05			3179 Sep 06 12:59	0°♂	
behind sun end	3174 Nov 14 12:40	21°♌43'13			3179 Oct 24 11:29	0°♎	
	3174 Nov 26 17:36	0°♊			3179 Dec 20 05:55	0°♊	
desc. node	3174 Nov 29 06:18	1°♊43'43		retrograde	3180 Feb 14 20:48	14°♊51'02	
morning rise	3174 Dec 31 05:05	23°♊57'51		opposition	3180 Mar 25 16:49	5°♊24'34	3°39'12
	3175 Jan 08 16:55	0°♈		greatest brilliancy	3180 Mar 26 00:08	5°♊17'21	-1.2m
	3175 Feb 18 21:37	0°♍		min. Earth dist.	3180 Mar 27 13:45	4°♊40'09	0.67430 AU
	3175 Mar 30 18:12	0°♋			3180 Apr 09 04:45	30°♌♎	
	3175 May 08 21:48	0°♑		direct	3180 May 06 01:10	25°♎25'58	
	3175 Jun 17 06:00	0°♉			3180 Jun 04 06:52	0°♊	
	3175 Jul 28 02:17	0°♈		desc. node	3180 Jul 21 02:36	19°♈29'08	
	3175 Sep 10 21:07	0°♄			3180 Aug 09 13:41	0°♌	
asc. node	3175 Oct 02 15:42	12°♄43'50			3180 Sep 27 06:02	0°♊	
	3175 Nov 10 17:41	0°♂			3180 Nov 09 13:05	0°♈	

	3180 Dec 19 18:47	0°♊			3185 Aug 24 02:36	0°♍	
	3181 Jan 27 07:52	0°♋		max. Earth dist.	3185 Aug 27 06:29	2°♍01'39	2.65927 AU
evening set	3181 Mar 03 11:01	27°♋45'43		morning rise	3185 Oct 02 22:53	25°♍24'14	
	3181 Mar 06 07:03	0°♌			3185 Oct 10 04:51	0°♎	
greatest brilliancy	3181 Mar 14 16:34	6°♌37'01	1.2m		3185 Nov 26 16:08	0°♏	
	3181 Apr 13 16:07	0°♍			3186 Jan 13 09:42	0°♐	
					3186 Mar 02 22:28	0°♑	
conjunction	3181 May 10 10:12	20°♍23'18	0°-9'-23	desc. node	3186 Mar 12 23:41	6°♑04'39	
minimum elong	3181 May 10 11:01	20°♍24'49	0°09'24		3186 Apr 23 06:35	0°♒	
behind sun begin	3181 May 09 12:12	19°♍41'55			3186 Jul 05 10:15	0°♋	
behind sun end	3181 May 11 09:50	21°♍07'41		retrograde	3186 Jul 18 21:55	1°♋06'16	
	3181 May 23 07:15	0°♎			3186 Aug 01 06:30	30°♌	
asc. node	3181 May 24 13:17	0°♎55'34		opposition	3186 Aug 18 05:23	26°♌02'51	-6°-42'-11
max. Earth dist.	3181 Jun 27 10:36	25°♎29'57	2.46718 AU	greatest brilliancy	3186 Aug 19 11:57	25°♌41'59	-2.8m
	3181 Jul 03 19:18	0°♏		min. Earth dist.	3186 Aug 22 08:09	24°♌55'37	0.38386 AU
morning rise	3181 Jul 12 03:38	5°♏51'03		direct	3186 Sep 18 11:34	20°♌32'03	
	3181 Aug 16 13:20	0°♐			3186 Oct 28 01:14	0°♋	
	3181 Oct 01 19:10	0°♑			3186 Dec 20 16:22	0°♌	
	3181 Nov 20 04:56	0°♒		asc. node	3187 Jan 14 09:51	16°♌11'31	
	3182 Jan 15 09:52	0°♓			3187 Feb 03 23:04	0°♍	
retrograde	3182 Mar 23 12:08	19°♓13'33			3187 Mar 20 08:38	0°♎	
opposition	3182 Apr 30 16:58	10°♓38'13	1°29'42		3187 May 04 11:32	0°♏	
greatest brilliancy	3182 May 01 04:02	10°♓27'37	-1.5m		3187 Jun 19 16:49	0°♐	
min. Earth dist.	3182 May 06 08:05	8°♓28'54	0.61762 AU		3187 Aug 05 18:06	0°♑	
desc. node	3182 Jun 08 01:32	0°♓45'45		evening set	3187 Aug 09 08:00	2°♑16'14	
direct	3182 Jun 10 21:03	0°♓42'42		max. Earth dist.	3187 Sep 19 14:36	28°♑27'50	2.67634 AU
	3182 Sep 01 00:09	0°♐			3187 Sep 22 00:31	0°♒	
	3182 Oct 17 21:39	0°♑					
	3182 Nov 28 07:13	0°♒		conjunction	3187 Sep 24 04:46	1°♒23'09	0°58'04
	3183 Jan 06 08:40	0°♋		minimum elong	3187 Sep 24 05:44	1°♒24'43	0°58'04
	3183 Feb 13 16:57	0°♌		morning rise	3187 Nov 07 08:52	29°♒42'28	
	3183 Mar 24 12:05	0°♍			3187 Nov 07 19:43	0°♓	
asc. node	3183 Apr 11 11:31	13°♍35'38			3187 Dec 23 16:44	0°♐	
	3183 May 03 14:56	0°♎		desc. node	3188 Jan 28 23:11	24°♐13'42	
evening set	3183 May 10 14:27	5°♎05'17			3188 Feb 06 12:10	0°♑	
	3183 Jun 14 14:26	0°♏			3188 Mar 21 08:00	0°♒	
					3188 May 03 12:35	0°♋	
conjunction	3183 Jul 06 22:13	15°♏23'04	0°48'43		3188 Jun 16 01:53	0°♌	
minimum elong	3183 Jul 06 20:26	15°♏20'01	0°48'41		3188 Aug 02 18:28	0°♍	
	3183 Jul 28 14:58	0°♎		retrograde	3188 Oct 02 01:07	20°♍15'10	
max. Earth dist.	3183 Aug 02 14:08	3°♎18'04	2.58787 AU	min. Earth dist.	3188 Oct 28 14:08	15°♍32'55	0.41457 AU
morning rise	3183 Aug 27 07:48	19°♎32'05		greatest brilliancy	3188 Nov 04 10:50	13°♍22'27	-2.6m
	3183 Sep 12 12:56	0°♏		opposition	3188 Nov 05 02:01	13°♍10'20	-1°-40'-23
	3183 Oct 30 02:49	0°♐		asc. node	3188 Dec 01 08:30	7°♍28'09	
	3183 Dec 18 13:16	0°♑		direct	3188 Dec 06 03:25	7°♍18'58	
	3184 Feb 09 19:09	0°♒			3189 Feb 14 07:58	0°♓	
desc. node	3184 Apr 25 00:18	29°♒23'29			3189 Apr 08 21:41	0°♔	
	3184 Apr 29 10:29	0°♓			3189 May 28 19:47	0°♕	
retrograde	3184 May 09 07:39	0°♓34'32			3189 Jul 16 17:48	0°♖	
	3184 May 18 22:47	30°♌			3189 Sep 02 19:18	0°♗	
opposition	3184 Jun 13 07:06	23°♌27'58	-2°-18'-31	evening set	3189 Sep 14 06:35	7°♗16'09	
greatest brilliancy	3184 Jun 14 07:52	23°♌06'20	-2.1m	max. Earth dist.	3189 Oct 12 00:44	25°♗05'14	2.63905 AU
min. Earth dist.	3184 Jun 21 17:29	20°♌31'51	0.50296 AU		3189 Oct 19 14:05	0°♘	
direct	3184 Jul 21 18:15	14°♌44'22					
	3184 Sep 12 03:59	0°♔		conjunction	3189 Oct 29 17:15	6°♘38'08	0°25'50
	3184 Oct 31 10:08	0°♕		minimum elong	3189 Oct 29 18:03	6°♘39'27	0°25'49
	3184 Dec 12 02:57	0°♖			3189 Dec 03 16:55	0°♐	
	3185 Jan 20 23:55	0°♗		morning rise	3189 Dec 14 08:52	7°♐16'12	
asc. node	3185 Feb 26 10:08	27°♗20'25		desc. node	3189 Dec 15 21:46	8°♐19'26	
	3185 Mar 02 00:08	0°♘			3190 Jan 16 00:59	0°♑	
	3185 Apr 12 05:12	0°♙			3190 Feb 26 17:32	0°♒	
	3185 May 25 03:46	0°♚			3190 Apr 08 03:07	0°♋	
evening set	3185 Jun 29 15:38	23°♚53'18			3190 May 17 20:05	0°♌	
	3185 Jul 08 21:40	0°♛			3190 Jun 26 19:57	0°♍	
					3190 Aug 07 20:51	0°♎	
conjunction	3185 Aug 18 00:53	26°♛05'55	1°08'19		3190 Sep 25 17:11	0°♏	
minimum elong	3185 Aug 18 00:43	26°♛05'37	1°08'20	asc. node	3190 Oct 19 07:12	10°♏45'09	

retrograde	3190 Nov 21 12:53	17°  36'44			3196 Mar 13 21:12	0° 	
min. Earth dist.	3190 Dec 23 01:43	10°  50'06	0.54561 AU				
greatest brilliancy	3190 Dec 28 23:39	8°  33'39	-1.9m	conjunction	3196 Apr 12 11:05	23°  13'27	0°-37'-30
opposition	3190 Dec 30 05:22	8°  05'02	3°15'42	minimum elong	3196 Apr 12 14:14	23°  19'34	0°37'28
direct	3191 Feb 03 21:08	0°  06'19			3196 Apr 21 04:37	0° 	
	3191 May 02 15:04	0° 			3196 May 30 17:08	0° 	
	3191 Jun 25 18:47	0° 		max. Earth dist.	3196 Jun 03 10:19	2°  45'18	2.41282 AU
	3191 Aug 14 19:49	0° 		asc. node	3196 Jun 10 04:49	7°  44'39	
	3191 Oct 01 05:30	0° 		morning rise	3196 Jun 19 13:43	14°  34'59	
evening set	3191 Oct 22 08:59	13°  45'50			3196 Jul 11 02:50	0° 	
desc. node	3191 Nov 02 20:37	21°  43'01			3196 Aug 23 21:13	0° 	
max. Earth dist.	3191 Nov 08 23:07	25°  45'22	2.55022 AU		3196 Oct 09 12:22	0° 	
	3191 Nov 15 04:12	0° 			3196 Nov 29 11:27	0° 	
					3197 Feb 03 07:39	0° 	
conjunction	3191 Dec 09 16:43	17°  03'50	0°-21'-10	retrograde	3197 Mar 08 03:19	5°  46'28	
minimum elong	3191 Dec 09 15:51	17°  02'17	0°21'10		3197 Apr 07 03:50	30°  46'28	
	3191 Dec 27 19:42	0° 		opposition	3197 Apr 16 03:23	26°  43'55	2°29'31
morning rise	3192 Jan 30 17:54	24°  55'28		greatest brilliancy	3197 Apr 16 15:58	26°  43'55	-1.4m
	3192 Feb 06 12:19	0° 		min. Earth dist.	3197 Apr 20 07:54	25°  43'55	0.64744 AU
	3192 Mar 16 19:19	0° 		direct	3197 May 27 14:39	16°  43'55	
	3192 Apr 24 09:44	0° 		desc. node	3197 Jun 24 16:19	20°  43'55	
	3192 Jun 02 03:59	0° 			3197 Jul 19 01:09	0° 	
	3192 Jul 12 02:47	0° 			3197 Sep 12 04:20	0° 	
	3192 Aug 23 15:01	0° 			3197 Oct 27 00:19	0° 	
asc. node	3192 Sep 05 07:28	8°  25'07			3197 Dec 06 18:35	0° 	
	3192 Oct 10 13:05	0° 			3198 Jan 14 12:58	0° 	
retrograde	3192 Dec 28 20:51	28°  03'20			3198 Feb 21 16:04	0° 	
min. Earth dist.	3193 Feb 03 11:48	19°  30'11	0.64344 AU		3198 Apr 01 05:40	0° 	
greatest brilliancy	3193 Feb 06 05:48	18°  02'45	-1.4m	evening set	3198 Apr 16 00:37	11°  46'27	
opposition	3193 Feb 07 00:43	18°  05'21	4°34'48	asc. node	3198 Apr 28 04:23	20°  46'27	
direct	3193 Mar 18 01:18	8°  53'27			3198 May 11 02:14	0° 	
	3193 May 28 11:46	0° 					
	3193 Jul 23 17:07	0° 		conjunction	3198 Jun 16 20:00	26°  43'55	0°30'45
	3193 Sep 10 23:27	0° 		minimum elong	3198 Jun 16 18:16	26°  43'55	0°30'44
desc. node	3193 Sep 19 19:22	5°  43'59			3198 Jun 21 19:39	0° 	
	3193 Oct 26 08:59	0° 		max. Earth dist.	3198 Jul 21 14:44	20°  43'55	2.54572 AU
evening set	3193 Dec 05 09:52	28°  43'55			3198 Aug 04 15:48	0° 	
	3193 Dec 07 19:46	0° 		morning rise	3198 Aug 10 20:33	4°  43'55	
max. Earth dist.	3193 Dec 21 19:23	10°  43'55	2.42340 AU		3198 Sep 19 14:19	0° 	
	3194 Jan 17 00:33	0° 			3198 Nov 06 15:14	0° 	
					3198 Dec 27 14:57	0° 	
conjunction	3194 Jan 31 03:57	10°  43'55	-1°-2'-10		3199 Feb 25 03:17	0° 	
minimum elong	3194 Jan 31 02:38	10°  48'46	1°02'11	retrograde	3199 Apr 19 19:18	13°  46'27	
	3194 Feb 24 18:03	0° 		desc. node	3199 May 12 15:54	10°  46'27	
	3194 Apr 03 20:38	0° 		opposition	3199 May 26 07:03	5°  46'27	0°-35'-58
morning rise	3194 Apr 07 17:36	3°  03'01		greatest brilliancy	3199 May 26 13:12	5°  46'27	-1.8m
	3194 May 12 05:24	0° 		min. Earth dist.	3199 Jun 02 22:07	2°  46'27	0.55318 AU
	3194 Jun 20 17:27	0° 			3199 Jun 10 22:10	30°  46'27	
asc. node	3194 Jul 24 06:34	24°  46'27		direct	3199 Jul 05 06:08	26°  46'27	
	3194 Aug 01 05:19	0° 			3199 Jul 30 14:46	0° 	
	3194 Sep 14 16:29	0° 			3199 Sep 29 21:19	0° 	
	3194 Nov 03 05:06	0° 			3199 Nov 12 21:47	0° 	
	3195 Jan 12 21:18	0° 			3199 Dec 23 00:57	0° 	
retrograde	3195 Feb 01 08:48	2°  46'27			3200 Jan 31 01:29	0° 	
	3195 Feb 19 16:41	30°  46'27			3200 Mar 10 10:21	0° 	
opposition	3195 Mar 13 12:27	22°  46'27	4°08'58	asc. node	3200 Mar 15 02:50	3°  46'27	
greatest brilliancy	3195 Mar 13 13:24	22°  46'27	-1.2m		3200 Apr 20 02:04	0° 	
min. Earth dist.	3195 Mar 13 20:58	22°  46'27	0.67858 AU		3200 Jun 01 13:17	0° 	
direct	3195 Apr 23 11:43	12°  46'27		evening set	3200 Jun 11 11:43	6°  46'27	
	3195 Jun 25 08:07	0° 			3200 Jul 15 22:22	0° 	
desc. node	3195 Aug 07 17:53	22°  46'27					
	3195 Aug 20 06:44	0° 		conjunction	3200 Aug 02 08:14	11°  46'27	1°04'49
	3195 Oct 06 10:12	0° 		minimum elong	3200 Aug 02 07:22	11°  46'27	1°04'49
	3195 Nov 18 06:59	0°		max. Earth dist.	3200 Aug 17 22:28	21° 46'27	2.63768 AU
	3195 Dec 28 10:07	0°			3200 Aug 30 22:47	0°	
evening set	3196 Feb 04 03:00	29° 46'27		morning rise	3200 Sep 18 20:37	12° 46'27	
	3196 Feb 04 22:39	0°			3200 Oct 17 03:05	0°	

	3200 Dec 04 03:18	0°♌			3206 Mar 17 16:11	0°♏		
	3201 Jan 22 06:06	0°♊			3206 May 13 15:54	0°♈		
	3201 Mar 15 05:39	0°♈			3206 Jul 03 23:41	0°♎		
desc. node	3201 Mar 29 15:13	7°♈40'01			3206 Aug 22 01:11	0°♌		
	3201 May 21 07:40	0°♍	evening set		3206 Oct 07 02:57	29°♌20'32		
retrograde	3201 Jun 17 23:05	4°♍13'19			3206 Oct 08 03:13	0°♌		
	3201 Jul 14 16:01	30°♊♈	max. Earth dist.		3206 Oct 28 04:12	13°♌11'31	2.59069 AU	
opposition	3201 Jul 19 22:27	28°♈25'52	-5°-22'-55	desc. node	3206 Nov 19 11:33	28°♌12'29		
greatest brilliancy	3201 Jul 21 19:27	27°♈51'17	-2.5m					
min. Earth dist.	3201 Jul 27 09:15	26°♈09'24	0.42227 AU	conjunction	3206 Nov 22 20:11	0°♊30'07	0°-1'-57	
direct	3201 Aug 23 10:32	21°♈32'19		minimum elong	3206 Nov 22 20:09	0°♊30'03	0°01'58	
	3201 Sep 29 05:24	0°♍		behind sun begin	3206 Nov 22 00:18	29°♌56'09		
	3201 Nov 21 10:10	0°♋		behind sun end	3206 Nov 23 15:59	1°♊03'59		
	3202 Jan 03 19:49	0°♎			3206 Nov 22 02:34	0°♊		
asc. node	3202 Jan 31 01:02	19°♎25'54			3207 Jan 03 23:22	0°♈		
	3202 Feb 14 20:33	0°♉	morning rise		3207 Jan 10 13:31	4°♈44'10		
	3202 Mar 29 11:43	0°♊			3207 Feb 13 23:49	0°♍		
	3202 May 12 11:50	0°♏			3207 Mar 25 15:08	0°♋		
	3202 Jun 26 23:44	0°♈			3207 May 03 13:16	0°♎		
evening set	3202 Jul 25 06:39	18°♈15'35			3207 Jun 11 15:02	0°♉		
	3202 Aug 12 15:02	0°♎			3207 Jul 22 00:28	0°♊		
					3207 Sep 03 14:54	0°♏		
conjunction	3202 Sep 10 02:33	18°♎08'12	1°04'59	asc. node	3207 Sep 22 22:56	12°♏04'00		
minimum elong	3202 Sep 10 03:13	18°♎09'16	1°04'59		3207 Oct 26 06:16	0°♈		
max. Earth dist.	3202 Sep 10 15:13	18°♎28'21	2.67628 AU	retrograde	3207 Dec 15 18:07	13°♈39'32		
	3202 Sep 28 18:13	0°♌		min. Earth dist.	3208 Jan 19 12:59	5°♈43'43	0.61217 AU	
morning rise	3202 Oct 24 14:07	16°♌27'45		greatest brilliancy	3208 Jan 23 11:55	4°♈09'34	-1.5m	
	3202 Nov 14 17:33	0°♌		opposition	3208 Jan 24 13:38	3°♈44'01	4°20'27	
	3202 Dec 31 03:48	0°♊			3208 Feb 03 11:00	30°♊♏		
desc. node	3203 Feb 14 13:57	29°♊43'48		direct	3208 Mar 02 11:09	24°♏55'31		
	3203 Feb 14 23:48	0°♈			3208 Apr 02 09:07	0°♈		
	3203 Apr 01 11:54	0°♍			3208 Jun 09 05:02	0°♎		
	3203 May 17 11:33	0°♋			3208 Aug 01 00:25	0°♌		
	3203 Jul 06 06:24	0°♎			3208 Sep 18 08:16	0°♌		
retrograde	3203 Sep 06 11:27	20°♎28'31		desc. node	3208 Oct 06 10:16	11°♌46'58		
min. Earth dist.	3203 Oct 03 15:07	16°♎01'31	0.37921 AU		3208 Nov 02 12:03	0°♊		
opposition	3203 Oct 07 21:26	14°♎50'06	-4°-40'-7	evening set	3208 Nov 16 13:10	9°♊43'35		
greatest brilliancy	3203 Oct 07 03:35	15°♎02'35	-2.9m	max. Earth dist.	3208 Nov 30 21:48	19°♊51'53	2.47547 AU	
direct	3203 Nov 06 09:36	9°♎47'26			3208 Dec 14 23:56	0°♈		
asc. node	3203 Dec 19 01:19	19°♎57'36						
	3204 Jan 09 06:48	0°♉		conjunction	3209 Jan 08 03:02	17°♈46'20	0°-49'-51	
	3204 Mar 01 13:35	0°♊		minimum elong	3209 Jan 08 01:09	17°♈42'48	0°49'51	
	3204 Apr 18 23:47	0°♏			3209 Jan 24 08:46	0°♍		
	3204 Jun 05 23:00	0°♈			3209 Mar 04 06:42	0°♋		
	3204 Jul 23 23:01	0°♎		morning rise	3209 Mar 09 06:46	3°♋54'28		
evening set	3204 Aug 31 01:57	23°♎57'29			3209 Apr 11 12:51	0°♎		
	3204 Sep 09 15:01	0°♌		greatest brilliancy	3209 May 15 20:52	26°♎48'36	1.2m	
max. Earth dist.	3204 Oct 02 18:52	14°♌46'18	2.65990 AU		3209 May 19 23:54	0°♉		
					3209 Jun 28 13:42	0°♊		
conjunction	3204 Oct 15 08:12	22°♌51'22	0°40'30	asc. node	3209 Aug 09 22:34	0°♏28'28		
minimum elong	3204 Oct 15 09:15	22°♌53'04	0°40'30		3209 Aug 09 06:11	0°♏		
	3204 Oct 26 08:32	0°♌			3209 Sep 23 10:21	0°♈		
morning rise	3204 Nov 28 23:29	22°♌08'46			3209 Nov 15 01:10	0°♎		
	3204 Dec 10 16:50	0°♊		retrograde	3210 Jan 19 01:32	19°♎27'40		
desc. node	3205 Jan 01 12:29	14°♊48'50		min. Earth dist.	3210 Feb 27 05:10	10°♎05'13	0.67278 AU	
	3205 Jan 23 11:53	0°♈		opposition	3210 Feb 28 08:59	9°♎37'26	4°28'13	
	3205 Mar 06 19:52	0°♍		greatest brilliancy	3210 Feb 28 02:28	9°♎43'57	-1.2m	
	3205 Apr 16 23:41	0°♋			3210 Apr 07 19:39	30°♊♈		
	3205 May 27 13:50	0°♎		direct	3210 Apr 09 18:03	29°♈58'37		
	3205 Jul 07 19:18	0°♉			3210 Apr 11 16:48	0°♎		
	3205 Aug 21 15:52	0°♊			3210 Jul 07 18:25	0°♌		
retrograde	3205 Nov 03 23:13	28°♊16'12		desc. node	3210 Aug 24 09:05	27°♌13'16		
asc. node	3205 Nov 05 00:48	28°♊15'42			3210 Aug 28 21:39	0°♌		
min. Earth dist.	3205 Dec 03 07:10	22°♊20'10	0.49407 AU		3210 Oct 14 03:25	0°♊		
greatest brilliancy	3205 Dec 10 11:00	19°♊42'22	-2.1m		3210 Nov 25 18:29	0°♈		
opposition	3205 Dec 11 08:55	19°♊22'12	1°55'20		3211 Jan 04 21:24	0°♍		
direct	3206 Jan 14 06:34	12°♊06'46		evening set	3211 Jan 09 02:29	3°♍13'54		

	3211 Feb 12 11:08	0°♄				3215 Dec 13 00:00	0°♄	
conjunction	3211 Mar 14 21:46	24°♄02'55	0°-58'-20			3216 Feb 02 06:39	0°♄	
minimum elong	3211 Mar 15 00:21	24°♄08'03	0°58'20	desc. node		3216 Apr 02 05:19	0°♄	
	3211 Mar 22 10:31	0°♄		retrograde		3216 Apr 15 05:47	4°♄54'46	
max. Earth dist.	3211 Apr 03 04:33	9°♄15'54	2.37060 AU	opposition		3216 May 22 11:56	12°♄01'20	
	3211 Apr 29 17:36	0°♄		greatest brilliancy		3216 Jun 25 10:12	5°♄21'26	-3°-24'-35
morning rise	3211 May 25 03:31	19°♄27'27		min. Earth dist.		3216 Jun 26 21:37	4°♄51'37	-2.2m
	3211 Jun 08 04:40	0°♄				3216 Jul 03 21:56	2°♄30'32	0.47361 AU
asc. node	3211 Jun 27 21:48	14°♄29'59		direct		3216 Jul 12 07:11	30°♄	
	3211 Jul 19 13:15	0°♄				3216 Aug 01 17:36	27°♄10'22	
	3211 Sep 01 10:17	0°♄				3216 Aug 22 09:27	0°♄	
	3211 Oct 18 17:05	0°♄				3216 Oct 22 16:49	0°♄	
	3211 Dec 11 10:39	0°♄				3216 Dec 05 05:19	0°♄	
retrograde	3212 Feb 22 18:09	22°♄35'39		asc. node		3217 Jan 14 21:27	0°♄	
opposition	3212 Apr 02 08:42	13°♄18'03	3°16'44			3217 Feb 16 18:51	24°♄23'34	
greatest brilliancy	3212 Apr 02 18:38	13°♄08'16	-1.3m			3217 Feb 24 09:57	0°♄	
min. Earth dist.	3212 Apr 05 01:47	12°♄14'03	0.66760 AU			3217 Apr 06 23:51	0°♄	
direct	3212 May 13 20:11	3°♄16'49				3217 May 20 05:14	0°♄	
desc. node	3212 Jul 11 08:20	19°♄02'19		evening set		3217 Jul 04 03:47	0°♄	
	3212 Aug 02 09:17	0°♄				3217 Jul 09 07:24	3°♄22'26	
	3212 Sep 21 15:46	0°♄				3217 Aug 19 11:19	0°♄	
	3212 Nov 04 09:47	0°♄		conjunction		3217 Aug 26 14:57	4°♄34'46	1°08'15
	3212 Dec 14 19:25	0°♄		minimum elong		3217 Aug 26 15:07	4°♄35'03	1°08'16
greatest brilliancy	3213 Jan 10 07:25	20°♄30'09	1.2m	max. Earth dist.		3217 Sep 01 15:36	8°♄25'51	2.66758 AU
	3213 Jan 22 09:50	0°♄				3217 Oct 05 13:02	0°♄	
	3213 Mar 01 09:46	0°♄		morning rise		3217 Oct 10 21:26	3°♄23'46	
evening set	3213 Mar 19 16:41	14°♄22'07				3217 Nov 21 19:09	0°♄	
	3213 Apr 08 19:41	0°♄				3218 Jan 07 23:34	0°♄	
asc. node	3213 May 14 19:31	27°♄16'18				3218 Feb 24 07:24	0°♄	
	3213 May 18 11:46	0°♄		desc. node		3218 Mar 03 05:08	4°♄20'33	
conjunction	3213 May 24 22:28	4°♄45'12	0°06'41			3218 Apr 13 16:58	0°♄	
minimum elong	3213 May 24 21:57	4°♄44'15	0°06'40	retrograde		3218 Jun 05 21:09	0°♄	
behind sun begin	3213 May 23 21:32	3°♄59'24		opposition		3218 Aug 06 09:41	18°♄40'06	
behind sun end	3213 May 25 22:22	5°♄29'03		greatest brilliancy		3218 Sep 05 09:20	13°♄43'24	-6°-37'-36
	3213 Jun 29 00:44	0°♄		min. Earth dist.		3218 Sep 05 21:30	13°♄35'20	-2.9m
max. Earth dist.	3213 Jul 07 07:41	5°♄48'28	2.49691 AU	direct		3218 Sep 06 14:58	13°♄23'46	0.37302 AU
morning rise	3213 Jul 23 15:07	17°♄03'59				3218 Oct 05 10:31	8°♄41'44	
	3213 Aug 11 18:18	0°♄		asc. node		3218 Dec 08 10:41	0°♄	
	3213 Sep 26 19:49	0°♄				3219 Jan 04 17:24	15°♄58'34	
	3213 Nov 14 13:51	0°♄				3219 Jan 26 23:17	0°♄	
	3214 Jan 07 03:57	0°♄				3219 Mar 14 00:00	0°♄	
retrograde	3214 Apr 01 20:24	27°♄52'05				3219 Apr 28 23:30	0°♄	
opposition	3214 May 09 12:56	19°♄31'51	0°48'17			3219 Jun 14 16:34	0°♄	
greatest brilliancy	3214 May 09 20:07	19°♄25'03	-1.6m	evening set		3219 Aug 01 00:34	0°♄	
min. Earth dist.	3214 May 15 22:34	17°♄06'45	0.59726 AU			3219 Aug 17 17:16	10°♄33'11	
desc. node	3214 May 29 06:58	12°♄40'50		max. Earth dist.		3219 Sep 17 09:40	0°♄	
direct	3214 Jun 19 10:16	9°♄43'41				3219 Sep 24 20:07	4°♄44'01	2.67274 AU
	3214 Aug 23 07:19	0°♄		conjunction		3219 Oct 02 05:59	9°♄27'51	0°52'27
	3214 Oct 11 14:36	0°♄		minimum elong		3219 Oct 02 07:03	9°♄29'33	0°52'27
	3214 Nov 22 16:34	0°♄				3219 Nov 03 03:56	0°♄	
	3215 Jan 01 00:57	0°♄		morning rise		3219 Nov 15 10:54	7°♄59'37	
	3215 Feb 08 13:26	0°♄				3219 Dec 18 20:08	0°♄	
	3215 Mar 19 11:57	0°♄		desc. node		3220 Jan 19 03:34	21°♄03'36	
asc. node	3215 Apr 01 19:06	10°♄02'58				3220 Feb 01 05:59	0°♄	
	3215 Apr 28 17:43	0°♄				3220 Mar 15 11:15	0°♄	
evening set	3215 May 23 06:02	17°♄38'39				3220 Apr 26 18:15	0°♄	
	3215 Jun 09 19:56	0°♄				3220 Jun 07 20:43	0°♄	
conjunction	3215 Jul 17 09:37	25°♄38'30	0°56'17			3220 Jul 21 19:21	0°♄	
minimum elong	3215 Jul 17 08:05	25°♄35'58	0°56'16	retrograde		3220 Sep 16 05:10	0°♄	
	3215 Jul 23 22:13	0°♄		min. Earth dist.		3220 Oct 14 21:25	5°♄28'23	
max. Earth dist.	3215 Aug 08 22:37	10°♄35'21	2.60791 AU			3220 Nov 11 05:20	0°♄22'38	0.44112 AU
morning rise	3215 Sep 05 04:33	28°♄17'59		opposition		3220 Nov 12 08:43	30°♄	
	3215 Sep 07 20:00	0°♄		greatest brilliancy		3220 Nov 19 08:18	27°♄37'26	0°-8'-30
	3215 Oct 25 04:58	0°♄		asc. node		3221 Mar 24 09:41	25°♄32'04	-3.8m
						3220 Nov 21 16:32	26°♄50'08	

direct	3220 Dec 21 09:29	21°♄14'34		minimum elong	3226 Feb 14 14:55	25°♁48'12	1°04'51
	3221 Jan 30 14:10	0°♈			3226 Feb 19 23:20	0°♈	
	3221 Apr 01 11:07	0°♄			3226 Mar 30 00:19	0°♈	
	3221 May 23 02:01	0°♈		morning rise	3226 Apr 25 03:44	20°♈32'18	
	3221 Jul 11 16:56	0°♈			3226 May 07 07:43	0°♈	
	3221 Aug 29 01:58	0°♈			3226 Jun 15 18:13	0°♈	
evening set	3221 Sep 22 11:53	15°♈29'15		asc. node	3226 Jul 14 13:31	21°♈04'00	
	3221 Oct 14 23:08	0°♈			3226 Jul 27 03:09	0°♄	
max. Earth dist.	3221 Oct 17 17:23	1°♈48'07	2.62380 AU		3226 Sep 09 06:27	0°♈	
					3226 Oct 27 15:55	0°♈	
conjunction	3221 Nov 07 06:06	15°♈20'38	0°16'10		3226 Dec 26 11:04	0°♈	
minimum elong	3221 Nov 07 06:39	15°♈21'33	0°16'10	retrograde	3227 Feb 09 01:18	9°♈55'51	
	3221 Nov 29 00:49	0°♈		opposition	3227 Mar 21 01:58	0°♈22'56	3°52'42
desc. node	3221 Dec 06 02:39	4°♈49'50		greatest brilliancy	3227 Mar 21 06:39	0°♈18'18	-1.2m
morning rise	3221 Dec 23 18:39	17°♈02'16		min. Earth dist.	3227 Mar 22 07:01	29°♈54'09	0.67759 AU
	3222 Jan 11 04:47	0°♈			3227 Mar 22 01:07	30°♈	
	3222 Feb 21 15:27	0°♈		direct	3227 May 01 07:28	20°♈27'16	
	3222 Apr 02 17:59	0°♈			3227 Jun 14 11:37	0°♈	
	3222 May 12 03:13	0°♈		desc. node	3227 Jul 28 22:57	20°♈55'42	
	3222 Jun 20 17:06	0°♈			3227 Aug 14 02:43	0°♈	
	3222 Jul 31 22:01	0°♈			3227 Oct 01 03:57	0°♈	
	3222 Sep 15 19:48	0°♈			3227 Nov 13 07:45	0°♈	
asc. node	3222 Oct 09 16:09	12°♈59'50			3227 Dec 23 13:26	0°♈	
retrograde	3222 Nov 30 16:49	27°♈52'15			3228 Jan 31 02:42	0°♈	
min. Earth dist.	3223 Jan 02 10:17	20°♈39'43	0.57150 AU	evening set	3228 Feb 19 21:07	15°♈36'59	
opposition	3223 Jan 08 21:09	18°♈08'38	3°46'47		3228 Mar 09 01:30	0°♈	
greatest brilliancy	3223 Jan 07 15:17	18°♈37'48	-1.7m		3228 Apr 16 09:16	0°♈	
direct	3223 Feb 14 10:04	9°♈50'04					
	3223 Apr 23 23:34	0°♈		conjunction	3228 Apr 28 13:05	9°♈21'11	0°-21'-48
	3223 Jun 19 22:13	0°♈		minimum elong	3228 Apr 28 15:03	9°♈24'55	0°21'47
	3223 Aug 09 18:57	0°♈			3228 May 25 22:05	0°♈	
	3223 Sep 26 12:02	0°♈		asc. node	3228 May 31 13:19	4°♈10'26	
desc. node	3223 Oct 24 02:14	18°♈10'37		max. Earth dist.	3228 Jun 18 12:13	17°♈16'56	2.44270 AU
evening set	3223 Oct 31 11:32	23°♈09'08		morning rise	3228 Jul 02 18:51	27°♈30'08	
	3223 Nov 10 12:52	0°♈			3228 Jul 06 07:34	0°♄	
max. Earth dist.	3223 Nov 16 08:49	4°♈00'46	2.52489 AU		3228 Aug 18 23:59	0°♈	
					3228 Oct 04 07:35	0°♈	
conjunction	3223 Dec 20 01:19	27°♈46'40	0°-32'-13		3228 Nov 23 04:47	0°♈	
minimum elong	3223 Dec 19 23:58	27°♈44'15	0°32'14		3229 Jan 20 22:17	0°♈	
	3223 Dec 23 03:14	0°♈		retrograde	3229 Mar 16 17:48	13°♈46'03	
	3224 Feb 01 17:08	0°♈		opposition	3229 Apr 24 08:34	4°♈59'42	1°56'12
morning rise	3224 Feb 12 14:17	8°♈15'10		greatest brilliancy	3229 Apr 24 20:47	4°♈47'54	-1.4m
	3224 Mar 11 20:39	0°♈		min. Earth dist.	3229 Apr 29 08:56	3°♈03'41	0.63221 AU
	3224 Apr 19 07:34	0°♈			3229 May 07 18:54	30°♈	
	3224 May 27 22:29	0°♈		direct	3229 Jun 04 17:31	25°♈00'23	
	3224 Jul 06 16:34	0°♈		desc. node	3229 Jun 14 21:58	25°♈38'26	
	3224 Aug 17 18:31	0°♈			3229 Jul 04 15:50	0°♈	
asc. node	3224 Aug 26 14:21	5°♈59'18			3229 Sep 05 09:16	0°♈	
	3224 Oct 03 06:23	0°♈			3229 Oct 21 08:05	0°♈	
	3224 Dec 03 02:24	0°♈			3229 Dec 01 11:33	0°♈	
retrograde	3225 Jan 05 16:27	6°♈20'02			3230 Jan 09 10:00	0°♈	
	3225 Feb 05 18:35	30°♈			3230 Feb 16 15:37	0°♈	
min. Earth dist.	3225 Feb 12 06:42	27°♈28'00	0.65680 AU		3230 Mar 27 07:34	0°♈	
opposition	3225 Feb 14 23:05	26°♈23'38	4°36'07	asc. node	3230 Apr 18 11:56	16°♈48'33	
greatest brilliancy	3225 Feb 14 08:34	26°♈38'08	-1.3m	evening set	3230 Apr 30 06:49	25°♈35'11	
direct	3225 Mar 26 12:52	17°♈00'53			3230 May 06 06:26	0°♈	
	3225 May 18 18:30	0°♈			3230 Jun 17 01:49	0°♄	
	3225 Jul 17 18:17	0°♈					
	3225 Sep 05 21:17	0°♈		conjunction	3230 Jun 28 13:04	7°♈58'43	0°41'51
desc. node	3225 Sep 10 00:46	2°♈37'19		minimum elong	3230 Jun 28 11:11	7°♈55'29	0°41'50
	3225 Oct 21 14:00	0°♈		max. Earth dist.	3230 Jul 28 16:44	28°♈29'17	2.56993 AU
	3225 Dec 03 02:41	0°♈			3230 Jul 30 22:58	0°♈	
evening set	3225 Dec 17 01:45	10°♈15'14		morning rise	3230 Aug 20 10:32	13°♈32'56	
max. Earth dist.	3226 Jan 08 09:29	27°♈01'27	2.39634 AU		3230 Sep 14 19:47	0°♈	
	3226 Jan 12 07:12	0°♈			3230 Nov 01 12:45	0°♈	
					3230 Dec 21 12:04	0°♈	
conjunction	3226 Feb 14 15:06	25°♈48'33	-1°-4'-49		3231 Feb 14 15:59	0°♈	

retrograde	3231 May 01 01:09	23°♂16'19			3236 Jul 19 02:26	0°♎	
desc. node	3231 May 02 20:48	23°♂15'07			3236 Sep 04 23:42	0°♊	
opposition	3231 Jun 05 17:55	15°♂50'27	-1°-32'-36	evening set	3236 Sep 08 04:59	2°♊02'19	
greatest brilliancy	3231 Jun 06 10:23	15°♂35'43	-1.9m	max. Earth dist.	3236 Oct 08 04:31	21°♊11'50	2.64941 AU
min. Earth dist.	3231 Jun 13 21:33	12°♂55'48	0.52613 AU		3236 Oct 21 18:31	0°♌	
direct	3231 Jul 14 23:41	6°♂45'41					
	3231 Sep 20 18:31	0°♌		conjunction	3236 Oct 23 12:00	1°♌07'36	0°32'16
	3231 Nov 06 03:09	0°♍		minimum elong	3236 Oct 23 12:56	1°♌09'07	0°32'16
	3231 Dec 17 01:05	0°♎			3236 Dec 06 00:33	0°♏	
	3232 Jan 25 11:25	0°♐		morning rise	3236 Dec 07 14:52	1°♏04'44	
asc. node	3232 Mar 05 10:36	0°♑13'26		desc. node	3236 Dec 22 18:09	11°♏23'15	
	3232 Mar 05 03:24	0°♒			3237 Jan 18 14:09	0°♑	
	3232 Apr 15 00:55	0°♓			3237 Mar 01 13:55	0°♒	
	3232 May 27 16:52	0°♈			3237 Apr 11 07:23	0°♓	
evening set	3232 Jun 22 01:16	17°♈13'31			3237 May 21 08:29	0°♐	
	3232 Jul 11 05:31	0°♉			3237 Jun 30 18:27	0°♑	
					3237 Aug 12 14:49	0°♓	
conjunction	3232 Aug 11 10:42	20°♉24'43	1°07'26		3237 Oct 04 08:37	0°♈	
minimum elong	3232 Aug 11 10:14	20°♉23'58	1°07'25	asc. node	3237 Oct 26 07:17	7°♈39'43	
max. Earth dist.	3232 Aug 23 12:02	28°♉11'34	2.65064 AU	retrograde	3237 Nov 14 06:07	10°♈06'17	
	3232 Aug 26 07:30	0°♎		min. Earth dist.	3237 Dec 14 18:54	3°♈42'17	0.52321 AU
morning rise	3232 Sep 27 00:06	20°♎14'10		greatest brilliancy	3237 Dec 21 06:37	1°♈15'17	-2.0m
	3232 Oct 12 09:50	0°♏		opposition	3237 Dec 22 10:41	0°♈48'44	2°46'37
	3232 Nov 29 02:03	0°♐			3237 Dec 24 14:44	30°♒♐	
	3233 Jan 16 08:16	0°♏		direct	3238 Jan 26 09:05	23°♐08'06	
	3233 Mar 07 01:59	0°♑			3238 Mar 03 05:23	0°♈	
desc. node	3233 Mar 19 19:37	7°♑22'25			3238 May 06 17:51	0°♉	
	3233 May 01 02:13	0°♒			3238 Jun 28 13:15	0°♎	
retrograde	3233 Jul 04 19:47	19°♒12'30			3238 Aug 17 04:06	0°♏	
opposition	3233 Aug 04 20:05	13°♒52'16	-6°-17'-22		3238 Oct 03 11:21	0°♌	
greatest brilliancy	3233 Aug 06 12:39	13°♒23'07	-2.7m	evening set	3238 Oct 15 17:35	8°♌01'19	
min. Earth dist.	3233 Aug 10 19:00	12°♒10'18	0.39870 AU	max. Earth dist.	3238 Nov 03 17:34	20°♌40'23	2.56924 AU
direct	3233 Sep 06 11:29	7°♒46'41		desc. node	3238 Nov 09 16:59	24°♌42'33	
	3233 Nov 09 17:33	0°♓			3238 Nov 17 11:32	0°♏	
	3233 Dec 26 19:46	0°♐					
asc. node	3234 Jan 21 10:02	17°♐34'45		conjunction	3238 Dec 02 05:41	10°♏10'46	0°-12'-59
	3234 Feb 08 07:23	0°♑		minimum elong	3238 Dec 02 05:09	10°♏09'52	0°13'00
	3234 Mar 23 18:30	0°♒		behind sun begin	3238 Dec 01 16:42	9°♏48'14	
	3234 May 07 07:09	0°♈		behind sun end	3238 Dec 02 17:36	10°♏31'30	
	3234 Jun 22 03:13	0°♉			3238 Dec 30 06:26	0°♑	
evening set	3234 Aug 02 23:24	26°♉49'10		morning rise	3239 Jan 21 15:14	16°♑15'42	
	3234 Aug 07 23:19	0°♎			3239 Feb 09 03:25	0°♒	
max. Earth dist.	3234 Sep 15 20:06	24°♎42'08	2.67737 AU		3239 Mar 20 14:36	0°♓	
					3239 Apr 28 08:17	0°♐	
conjunction	3234 Sep 18 04:58	26°♎12'33	1°01'21		3239 Jun 06 05:07	0°♑	
minimum elong	3234 Sep 18 05:50	26°♎13'56	1°01'21		3239 Jul 16 06:43	0°♒	
	3234 Sep 24 03:59	0°♏			3239 Aug 28 01:58	0°♈	
morning rise	3234 Nov 01 11:13	24°♏28'39		asc. node	3239 Sep 13 07:23	10°♈33'37	
	3234 Nov 10 01:10	0°♌			3239 Oct 16 06:16	0°♉	
	3234 Dec 26 04:04	0°♏		retrograde	3239 Dec 23 22:51	22°♉31'10	
desc. node	3235 Feb 04 19:23	26°♏55'25		min. Earth dist.	3240 Jan 28 18:51	14°♉13'57	0.63067 AU
	3235 Feb 09 09:46	0°♑		opposition	3240 Feb 01 23:42	12°♉33'28	4°31'02
	3235 Mar 25 21:35	0°♒		greatest brilliancy	3240 Feb 01 01:34	12°♉55'33	-1.4m
	3235 May 09 01:55	0°♓		direct	3240 Mar 11 13:00	3°♉31'11	
	3235 Jun 23 10:30	0°♐			3240 Jun 01 21:04	0°♎	
	3235 Aug 16 23:05	0°♑			3240 Jul 26 12:35	0°♏	
retrograde	3235 Sep 22 03:27	8°♑12'57			3240 Sep 13 10:13	0°♌	
min. Earth dist.	3235 Oct 18 13:08	3°♑43'02	0.39609 AU	desc. node	3240 Sep 26 15:34	8°♌31'57	
opposition	3235 Oct 24 22:47	1°♑48'13	-2°-57'-59		3240 Oct 28 18:42	0°♏	
greatest brilliancy	3235 Oct 24 02:30	2°♑03'28	-2.8m	evening set	3240 Nov 26 23:51	20°♏25'13	
	3235 Oct 31 03:29	30°♒♐			3240 Dec 10 07:10	0°♑	
direct	3235 Nov 24 05:11	26°♐21'24		max. Earth dist.	3240 Dec 11 15:31	0°♑58'49	2.44662 AU
asc. node	3235 Dec 09 08:47	27°♐49'04			3241 Jan 19 14:42	0°♒	
	3235 Dec 18 15:43	0°♑					
	3236 Feb 21 20:57	0°♒		conjunction	3241 Jan 20 17:36	0°♒51'10	0°-57'-51
	3236 Apr 12 16:03	0°♈		minimum elong	3241 Jan 20 15:50	0°♒47'49	0°57'51
	3236 May 31 14:53	0°♉			3241 Feb 27 10:42	0°♓	

greatest brilliancy	3241 Mar 16 16:02	13° ✕ 30'42	1.2m	greatest brilliancy	3248 Nov 28 12:46	0° ✕ 48'09	8.6m
morning rise	3241 Mar 25 11:48	20° ✕ 27'12		desc. node	3246 May 19 12:15	28° ℳ 38'41	
	3241 Apr 06 14:50	0° Υ		min. Earth dist.	3246 May 25 23:55	26° ℳ 14'03	0.57380 AU
	3241 May 15 00:08	0° ♄		direct	3246 Jun 28 07:52	19° ℳ 15'57	
	3241 Jun 23 11:53	0° ♂			3246 Aug 11 15:35	0° ♂	
asc. node	3241 Jul 31 06:45	27° ♂ 23'40			3246 Oct 04 15:02	0° ♂	
	3241 Aug 03 23:45	0° ♄			3246 Nov 16 17:03	0° ≈	
	3241 Sep 17 14:58	0° ♂			3246 Dec 26 11:37	0° ✕	
	3241 Nov 07 00:35	0° ♊			3247 Feb 03 06:09	0° Υ	
retrograde	3242 Jan 26 16:35	27° ♊ 17'14			3247 Mar 14 09:26	0° ♄	
opposition	3242 Mar 07 22:50	17° ♊ 32'20	4°18'12	asc. node	3247 Mar 23 03:22	6° ♄ 35'27	
greatest brilliancy	3242 Mar 07 20:36	17° ♊ 34'34	-1.2m		3247 Apr 23 19:32	0° ♂	
min. Earth dist.	3242 Mar 07 15:25	17° ♊ 39'44	0.67726 AU	evening set	3247 Jun 04 00:41	29° ♂ 17'22	
direct	3242 Apr 17 16:41	7° ♊ 46'23			3247 Jun 05 01:15	0° ♄	
	3242 Jun 30 02:30	0° ♂			3247 Jul 19 06:03	0° ♂	
desc. node	3242 Aug 14 14:07	24° ♂ 47'07					
	3242 Aug 23 07:11	0° ℳ		conjunction	3247 Jul 27 05:48	5° ♂ 17'44	1°01'53
	3242 Oct 09 02:43	0° ♂		minimum elong	3247 Jul 27 04:39	5° ♂ 15'49	1°01'52
	3242 Nov 20 22:20	0° ♂		max. Earth dist.	3247 Aug 14 21:40	17° ♂ 31'49	2.62541 AU
	3242 Dec 31 02:23	0° ≈			3247 Sep 03 04:07	0° ♊	
evening set	3243 Jan 23 09:31	18° ≈ 01'30		morning rise	3247 Sep 13 16:23	6° ♊ 44'20	
	3243 Feb 07 15:54	0° ✕			3247 Oct 20 09:33	0° ♂	
	3243 Mar 17 14:36	0° Υ			3247 Dec 07 16:46	0° ℳ	
					3248 Jan 26 14:16	0° ♂	
conjunction	3243 Mar 31 13:32	11° Υ 00'15	0°-47'-57		3248 Mar 20 22:47	0° ♂	
minimum elong	3243 Mar 31 16:55	11° Υ 06'54	0°47'57	desc. node	3248 Apr 05 11:30	7° ♂ 29'35	
	3243 Apr 24 21:13	0° ♄		retrograde	3248 Jun 05 20:33	24° ♂ 30'02	
max. Earth dist.	3243 May 18 02:15	17° ♄ 47'44	2.39020 AU	opposition	3248 Jul 08 16:48	18° ♄ 18'44	-4°-32'-41
	3243 Jun 03 08:02	0° ♂		greatest brilliancy	3248 Jul 10 11:54	17° ♄ 44'02	-2.4m
morning rise	3243 Jun 09 13:30	4° ♂ 37'18		min. Earth dist.	3248 Jul 16 19:55	15° ♄ 42'36	0.44441 AU
asc. node	3243 Jun 18 04:50	10° ♂ 58'31		direct	3248 Aug 13 13:00	10° ♄ 47'52	
	3243 Jul 14 15:41	0° ♄			3248 Oct 11 07:16	0° ≈	
	3243 Aug 27 09:25	0° ♂			3248 Nov 27 09:03	0° ✕	
	3243 Oct 13 04:19	0° ♊			3249 Jan 08 07:06	0° Υ	
	3243 Dec 03 23:24	0° ♂		asc. node	3249 Feb 07 01:25	21° Υ 41'17	
	3244 Feb 21 21:43	0° ℳ			3249 Feb 18 12:29	0° ♄	
retrograde	3244 Mar 01 21:07	0° ℳ 28'54			3249 Apr 01 14:21	0° ♂	
	3244 Mar 10 14:39	30° ♂ 1'21			3249 May 15 04:20	0° ♄	
opposition	3244 Apr 10 04:53	21° ♂ 21'26	2°50'24		3249 Jun 29 09:07	0° ♂	
greatest brilliancy	3244 Apr 10 16:36	21° ♂ 09'58	-1.3m	evening set	3249 Jul 18 13:51	12° ♂ 28'29	
min. Earth dist.	3244 Apr 13 18:03	19° ♂ 58'13	0.65768 AU		3249 Aug 14 20:06	0° ♊	
direct	3244 May 21 17:38	11° ♂ 19'16					
desc. node	3244 Jul 01 12:46	19° ♂ 51'21		conjunction	3249 Sep 03 23:30	12° ♊ 51'21	1°06'49
	3244 Jul 24 22:29	0° ℳ		minimum elong	3249 Sep 03 23:59	12° ♊ 52'07	1°06'48
	3244 Sep 15 16:36	0° ♂		max. Earth dist.	3249 Sep 06 21:24	14° ♊ 42'38	2.67348 AU
	3244 Oct 30 02:08	0° ♄			3249 Sep 30 22:14	0° ♂	
	3244 Dec 09 17:35	0° ≈		morning rise	3249 Oct 18 17:54	11° ♂ 20'00	
	3245 Jan 17 10:41	0° ✕			3249 Nov 17 00:30	0° ℳ	
	3245 Feb 24 12:07	0° Υ			3250 Jan 02 18:22	0° ♂	
	3245 Apr 03 23:20	0° ♄			3250 Feb 18 04:49	0° ♄	
evening set	3245 Apr 04 09:10	0° ♄ 18'57		desc. node	3250 Feb 21 10:21	2° ♄ 05'24	
asc. node	3245 May 05 04:18	23° ♄ 40'19			3250 Apr 05 18:31	0° ≈	
	3245 May 13 16:45	0° ♂			3250 May 23 21:24	0° ✕	
					3250 Jul 21 06:07	0° Υ	
conjunction	3245 Jun 07 06:44	17° ♂ 54'55	0°21'10	retrograde	3250 Aug 24 06:21	6° Υ 56'50	
minimum elong	3245 Jun 07 05:19	17° ♂ 52'24	0°21'09	min. Earth dist.	3250 Sep 21 20:34	2° Υ 17'14	0.37219 AU
	3245 Jun 24 06:39	0° ♄		opposition	3250 Sep 23 19:36	1° Υ 45'39	-5°-46'-4
max. Earth dist.	3245 Jul 15 19:22	14° ♄ 57'31	2.52460 AU	greatest brilliancy	3250 Sep 23 12:16	1° Υ 50'35	-2.9m
morning rise	3245 Aug 03 06:16	27° ♄ 29'15			3250 Sep 30 14:02	30° ♂	
	3245 Aug 07 00:12	0° ♂		direct	3250 Oct 23 05:31	26° ✕ 51'52	
	3245 Sep 21 22:20	0° ♊			3250 Nov 14 13:04	0° Υ	
	3245 Nov 09 04:27	0° ♂		asc. node	3250 Dec 26 01:09	17° Υ 28'18	
	3245 Dec 31 00:43	0° ℳ			3251 Jan 17 09:15	0° ♄	
	3246 Mar 05 19:11	0° ♂			3251 Mar 07 02:12	0° ♂	
retrograde	3246 Apr 11 19:11	6° ♂ 55'48			3251 Apr 23 05:48	0° ♄	
	3246 May 15 20:04	30° ♂ 1'21			3251 Jun 09 13:59	0° ♂	
opposition	3246 May 18 20:54	28° ♂ 52'58	0°01'38		3251 Jul 27 06:10	0° ♊	

evening set	3251 Aug 25 23:45	18° \mathbb{M} 43'36			3256 Apr 14 08:15	0° Υ	
	3251 Sep 12 19:05	0° $\underline{\mathbf{A}}$			3256 May 22 20:19	0° \mathcal{B}	
max. Earth dist.	3251 Sep 30 01:50	11° $\underline{\mathbf{A}}$ 00'27	2.66675 AU		3256 Jul 01 10:45	0° \mathbb{I}	
					3256 Aug 12 04:55	0° \mathfrak{S}	
conjunction	3251 Oct 10 07:13	17° $\underline{\mathbf{A}}$ 33'41	0°45'50	asc. node	3256 Aug 16 22:41	3° \mathfrak{S} 16'16	
minimum elong	3251 Oct 10 08:18	17° $\underline{\mathbf{A}}$ 35'25	0°45'49		3256 Sep 26 17:45	0° \mathcal{Q}	
	3251 Oct 29 13:26	0° \mathbb{M}			3256 Nov 20 09:43	0° \mathbb{M}	
morning rise	3251 Nov 23 16:09	16° \mathbb{M} 26'23		retrograde	3257 Jan 13 09:40	14° \mathbb{M} 24'22	
	3251 Dec 14 01:42	0° \mathcal{X}		min. Earth dist.	3257 Feb 20 21:39	5° \mathbb{M} 14'43	0.66687 AU
desc. node	3252 Jan 09 09:06	17° \mathcal{X} 47'10		opposition	3257 Feb 22 17:26	4° \mathbb{M} 30'57	4°33'02
	3252 Jan 27 03:45	0° \mathfrak{Z}		greatest brilliancy	3257 Feb 22 07:27	4° \mathbb{M} 40'56	-1.3m
	3252 Mar 09 21:03	0° \approx			3257 Mar 06 14:47	30° \mathcal{R} \mathcal{Q}	
	3252 Apr 20 12:12	0° \mathcal{H}		direct	3257 Apr 03 18:30	24° \mathcal{Q} 58'41	
	3252 May 31 15:43	0° Υ			3257 May 04 19:03	0° \mathbb{M}	
	3252 Jul 12 18:03	0° \mathcal{B}			3257 Jul 11 08:23	0° $\underline{\mathbf{A}}$	
	3252 Aug 29 01:58	0° \mathbb{I}		desc. node	3257 Aug 31 05:22	29° $\underline{\mathbf{A}}$ 45'01	
retrograde	3252 Oct 26 14:56	19° \mathbb{I} 17'40			3257 Aug 31 15:00	0° \mathbb{M}	
asc. node	3252 Nov 12 01:09	17° \mathbb{I} 18'55			3257 Oct 16 16:26	0° \mathcal{X}	
min. Earth dist.	3252 Nov 23 23:59	13° \mathbb{I} 45'06	0.47009 AU		3257 Nov 28 07:51	0° \mathfrak{Z}	
opposition	3252 Dec 02 06:19	10° \mathbb{I} 48'35	1°08'22	evening set	3257 Dec 29 17:15	23° \mathfrak{Z} 18'25	
greatest brilliancy	3252 Dec 01 16:09	11° \mathbb{I} 01'12	-2.3m		3258 Jan 07 12:27	0° \approx	
direct	3253 Jan 04 07:53	3° \mathbb{I} 55'45		max. Earth dist.	3258 Feb 06 09:43	23° \approx 08'00	2.37484 AU
	3253 Mar 23 20:35	0° \mathfrak{S}			3258 Feb 15 03:53	0° \mathcal{H}	
	3253 May 17 00:59	0° \mathcal{Q}					
	3253 Jul 06 13:24	0° \mathbb{M}		conjunction	3258 Mar 02 05:30	11° \mathcal{H} 52'31	-1°-3'-3
	3253 Aug 24 07:48	0° $\underline{\mathbf{A}}$		minimum elong	3258 Mar 02 06:56	11° \mathcal{H} 55'21	1°03'04
evening set	3253 Sep 30 19:27	23° $\underline{\mathbf{A}}$ 48'41			3258 Mar 25 04:01	0° Υ	
	3253 Oct 10 08:35	0° \mathbb{M}			3258 May 02 10:42	0° \mathcal{B}	
max. Earth dist.	3253 Oct 23 15:30	8° \mathbb{M} 42'30	2.60653 AU	morning rise	3258 May 12 08:39	7° \mathcal{B} 39'07	
					3258 Jun 10 20:33	0° \mathbb{I}	
conjunction	3253 Nov 16 00:26	24° \mathbb{M} 18'16	0°05'54	asc. node	3258 Jul 04 22:14	17° \mathbb{I} 41'05	
minimum elong	3253 Nov 16 00:39	24° \mathbb{M} 18'37	0°05'55		3258 Jul 22 03:39	0° \mathfrak{S}	
behind sun begin	3253 Nov 15 06:09	23° \mathbb{M} 47'24			3258 Sep 04 01:11	0° \mathcal{Q}	
behind sun end	3253 Nov 16 19:09	24° \mathbb{M} 49'52			3258 Oct 21 15:10	0° \mathbb{M}	
	3253 Nov 24 09:58	0° \mathcal{X}			3258 Dec 16 00:58	0° $\underline{\mathbf{A}}$	
desc. node	3253 Nov 26 08:00	1° \mathcal{X} 18'28		retrograde	3259 Feb 16 19:58	17° $\underline{\mathbf{A}}$ 38'51	
morning rise	3254 Jan 02 15:14	27° \mathcal{X} 16'50		opposition	3259 Mar 28 16:02	8° $\underline{\mathbf{A}}$ 14'01	3°32'51
	3254 Jan 06 10:57	0° \mathfrak{Z}		greatest brilliancy	3259 Mar 28 23:53	8° $\underline{\mathbf{A}}$ 06'17	-1.2m
	3254 Feb 16 16:31	0° \approx		min. Earth dist.	3259 Mar 30 17:26	7° $\underline{\mathbf{A}}$ 25'16	0.67334 AU
	3254 Mar 28 13:08	0° \mathcal{H}			3259 Apr 22 11:13	30° \mathcal{R} \mathbb{M}	
	3254 May 06 15:49	0° Υ		direct	3259 May 09 01:54	28° \mathbb{M} 14'33	
	3254 Jun 14 21:47	0° \mathcal{B}			3259 May 26 14:32	0° $\underline{\mathbf{A}}$	
	3254 Jul 25 13:09	0° \mathbb{I}		desc. node	3259 Jul 19 04:40	19° $\underline{\mathbf{A}}$ 51'47	
	3254 Sep 07 19:12	0° \mathfrak{S}			3259 Aug 07 09:51	0° \mathbb{M}	
asc. node	3254 Sep 29 23:30	13° \mathfrak{S} 17'05			3259 Sep 25 16:53	0° \mathcal{X}	
	3254 Nov 03 16:22	0° \mathcal{Q}			3259 Nov 08 05:55	0° \mathfrak{Z}	
retrograde	3254 Dec 09 11:07	7° \mathcal{Q} 32'47			3259 Dec 18 14:37	0° \approx	
min. Earth dist.	3255 Jan 12 08:32	29° \mathfrak{S} 55'30	0.59510 AU		3260 Jan 26 04:58	0° \mathcal{H}	
	3255 Jan 12 03:55	30° \mathcal{R} \mathfrak{S}		greatest brilliancy	3260 Mar 03 19:13	29° \mathcal{H} 42'16	1.2m
greatest brilliancy	3255 Jan 16 20:36	28° \mathfrak{S} 09'02	-1.6m		3260 Mar 04 04:12	0° Υ	
opposition	3255 Jan 18 00:39	27° \mathfrak{S} 41'18	4°09'19	evening set	3260 Mar 07 03:44	2° Υ 21'08	
direct	3255 Feb 24 08:23	19° \mathfrak{S} 05'10			3260 Apr 11 12:28	0° \mathcal{B}	
	3255 Apr 12 21:39	0° \mathcal{Q}					
	3255 Jun 13 15:51	0° \mathbb{M}		conjunction	3260 May 13 21:27	24° \mathcal{B} 38'14	0°-5'-18
	3255 Aug 04 14:29	0° $\underline{\mathbf{A}}$		minimum elong	3260 May 13 21:55	24° \mathcal{B} 39'06	0°05'19
	3255 Sep 21 17:00	0° \mathbb{M}		behind sun begin	3260 May 12 19:37	23° \mathcal{B} 49'53	
desc. node	3255 Oct 14 06:40	14° \mathbb{M} 45'53		behind sun end	3260 May 15 00:13	25° \mathcal{B} 28'16	
	3255 Nov 05 20:47	0° \mathcal{X}		asc. node	3260 May 21 19:51	0° \mathbb{I} 32'51	
evening set	3255 Nov 10 00:27	2° \mathcal{X} 51'03			3260 May 21 02:09	0° \mathbb{I}	
max. Earth dist.	3255 Nov 24 17:31	13° \mathcal{X} 04'52	2.49819 AU	max. Earth dist.	3260 Jun 29 21:05	28° \mathbb{I} 50'52	2.47324 AU
	3255 Dec 18 11:04	0° \mathfrak{Z}			3260 Jul 01 12:12	0° \mathfrak{S}	
				morning rise	3260 Jul 14 23:56	9° \mathfrak{S} 26'36	
conjunction	3255 Dec 31 02:32	9° \mathfrak{Z} 13'18	0°-42'-44		3260 Aug 14 03:44	0° \mathcal{Q}	
minimum elong	3255 Dec 31 00:49	9° \mathfrak{Z} 10'08	0°42'44		3260 Sep 29 05:55	0° \mathbb{M}	
	3256 Jan 27 23:02	0° \approx			3260 Nov 17 08:24	0° $\underline{\mathbf{A}}$	
morning rise	3256 Feb 26 13:22	22° \approx 40'13			3261 Jan 11 11:39	0° \mathbb{M}	
	3256 Mar 07 00:02	0° \mathcal{H}		retrograde	3261 Mar 25 17:19	22° \mathbb{M} 10'00	

opposition	3261 May 02 20:56	13° \mathbb{M} 37'25	1°18'25		3266 May 01 22:25	0° \mathfrak{D}	
greatest brilliancy	3261 May 03 07:01	13° \mathbb{M} 27'47	-1.5m		3266 Jun 17 04:40	0° \mathcal{O}	
min. Earth dist.	3261 May 08 16:25	11° \mathbb{M} 24'24	0.61412 AU		3266 Aug 03 06:30	0° \mathfrak{M}	
desc. node	3261 Jun 05 03:28	4° \mathbb{M} 07'20		evening set	3266 Aug 11 11:48	5° \mathfrak{M} 12'41	
direct	3261 Jun 13 01:13	3° \mathbb{M} 42'53			3266 Sep 19 13:30	0° \mathfrak{L}	
	3261 Aug 28 16:00	0° \mathfrak{A}		max. Earth dist.	3266 Sep 21 01:37	0° \mathfrak{L} 57'28	2.67586 AU
	3261 Oct 15 08:18	0° \mathfrak{Z}					
	3261 Nov 26 00:21	0° \approx		conjunction	3266 Sep 26 06:38	4° \mathfrak{L} 16'31	0°56'32
	3262 Jan 04 04:27	0° \mathfrak{H}		minimum elong	3266 Sep 26 07:39	4° \mathfrak{L} 18'07	0°56'31
	3262 Feb 11 13:22	0° \mathfrak{Y}			3266 Nov 05 09:18	0° \mathbb{M}	
	3262 Mar 22 07:53	0° \mathfrak{B}		morning rise	3266 Nov 09 10:48	2° \mathbb{M} 37'43	
asc. node	3262 Apr 08 19:14	13° \mathfrak{B} 14'01			3266 Dec 21 06:30	0° \mathfrak{A}	
	3262 May 01 09:19	0° \mathbb{I}		desc. node	3267 Jan 25 23:57	23° \mathfrak{A} 52'30	
evening set	3262 May 13 15:59	8° \mathbb{I} 56'26			3267 Feb 04 01:17	0° \mathfrak{Z}	
	3262 Jun 12 06:59	0° \mathfrak{D}			3267 Mar 19 19:10	0° \approx	
					3267 May 01 19:41	0° \mathfrak{H}	
conjunction	3262 Jul 09 13:11	18° \mathfrak{D} 46'12	0°50'56		3267 Jun 13 23:51	0° \mathfrak{Y}	
minimum elong	3262 Jul 09 11:26	18° \mathfrak{D} 43'15	0°50'56		3267 Jul 30 09:15	0° \mathfrak{B}	
	3262 Jul 26 05:38	0° \mathcal{O}		retrograde	3267 Oct 06 01:48	24° \mathfrak{B} 35'30	
max. Earth dist.	3262 Aug 04 08:28	6° \mathcal{O} 03'42	2.59199 AU	min. Earth dist.	3267 Nov 01 19:08	19° \mathfrak{B} 48'52	0.41918 AU
morning rise	3262 Aug 29 14:29	22° \mathcal{O} 35'55		opposition	3267 Nov 09 10:13	17° \mathfrak{B} 21'19	-1°-17'00
	3262 Sep 10 01:42	0° \mathfrak{M}		greatest brilliancy	3267 Nov 08 21:48	17° \mathfrak{B} 31'23	-2.6m
	3262 Oct 27 12:59	0° \mathfrak{L}		asc. node	3267 Nov 29 16:27	12° \mathfrak{B} 12'54	
	3262 Dec 15 18:00	0° \mathbb{M}		direct	3267 Dec 10 15:13	11° \mathfrak{B} 24'04	
	3263 Feb 06 07:33	0° \mathfrak{A}			3268 Feb 10 20:03	0° \mathbb{I}	
	3263 Apr 16 00:14	0° \mathfrak{Z}			3268 Apr 05 18:50	0° \mathfrak{D}	
desc. node	3263 Apr 23 02:02	1° \mathfrak{Z} 43'46			3268 May 26 01:39	0° \mathcal{O}	
retrograde	3263 May 13 07:32	4° \mathfrak{Z} 00'52			3268 Jul 14 03:31	0° \mathfrak{M}	
	3263 Jun 07 20:06	30° \mathfrak{R} \mathfrak{A}			3268 Aug 31 07:27	0° \mathfrak{L}	
opposition	3263 Jun 17 01:24	26° \mathfrak{A} 59'20	-2°-34'-44	evening set	3268 Sep 16 09:14	10° \mathfrak{L} 10'55	
greatest brilliancy	3263 Jun 18 04:59	26° \mathfrak{A} 35'23	-2.1m	max. Earth dist.	3268 Oct 13 17:34	27° \mathfrak{L} 45'44	2.63615 AU
min. Earth dist.	3263 Jun 25 11:54	24° \mathfrak{A} 03'52	0.49744 AU		3268 Oct 17 04:10	0° \mathbb{M}	
direct	3263 Jul 25 07:57	18° \mathfrak{A} 21'04					
	3263 Sep 08 03:18	0° \mathfrak{Z}		conjunction	3268 Oct 31 20:50	9° \mathbb{M} 37'43	0°23'10
	3263 Oct 29 10:45	0° \approx		minimum elong	3268 Oct 31 21:34	9° \mathbb{M} 38'55	0°23'10
	3263 Dec 10 14:14	0° \mathfrak{H}			3268 Dec 01 08:29	0° \mathfrak{A}	
	3264 Jan 19 15:06	0° \mathfrak{Y}		desc. node	3268 Dec 12 22:49	7° \mathfrak{A} 53'59	
asc. node	3264 Feb 24 19:20	27° \mathfrak{Y} 07'05		morning rise	3268 Dec 16 16:16	10° \mathfrak{A} 27'25	
	3264 Feb 28 16:33	0° \mathfrak{B}			3269 Jan 13 17:34	0° \mathfrak{Z}	
	3264 Apr 09 21:28	0° \mathbb{I}			3269 Feb 24 10:30	0° \approx	
	3264 May 22 19:08	0° \mathfrak{D}			3269 Apr 05 19:53	0° \mathfrak{H}	
evening set	3264 Jul 02 02:06	27° \mathfrak{D} 05'23			3269 May 15 11:41	0° \mathfrak{Y}	
	3264 Jul 06 11:56	0° \mathcal{O}			3269 Jun 24 08:35	0° \mathfrak{B}	
					3269 Aug 05 01:46	0° \mathbb{I}	
conjunction	3264 Aug 20 05:50	29° \mathcal{O} 05'13	1°08'26		3269 Sep 21 16:40	0° \mathfrak{D}	
minimum elong	3264 Aug 20 05:46	29° \mathcal{O} 05'07	1°08'25	asc. node	3269 Oct 16 16:25	12° \mathfrak{D} 10'51	
	3264 Aug 21 15:57	0° \mathfrak{M}		retrograde	3269 Nov 23 20:38	20° \mathfrak{D} 56'57	
max. Earth dist.	3264 Aug 28 23:17	4° \mathfrak{M} 41'03	2.66102 AU	min. Earth dist.	3269 Dec 25 14:31	14° \mathfrak{D} 05'40	0.55071 AU
morning rise	3264 Oct 05 00:26	28° \mathfrak{M} 16'55		greatest brilliancy	3269 Dec 31 09:08	11° \mathfrak{D} 52'15	-1.8m
	3264 Oct 07 17:26	0° \mathfrak{L}		opposition	3270 Jan 01 15:21	11° \mathfrak{D} 23'05	3°25'26
	3264 Nov 24 03:32	0° \mathbb{M}		direct	3270 Feb 06 12:06	3° \mathfrak{D} 20'20	
	3265 Jan 10 18:09	0° \mathfrak{A}			3270 Apr 28 23:37	0° \mathcal{O}	
	3265 Feb 27 23:38	0° \mathfrak{Z}			3270 Jun 22 21:39	0° \mathfrak{M}	
desc. node	3265 Mar 10 01:08	6° \mathfrak{Z} 08'55			3270 Aug 12 05:25	0° \mathfrak{L}	
	3265 Apr 19 10:50	0° \approx			3270 Sep 28 19:08	0° \mathbb{M}	
	3265 Jun 21 05:37	0° \mathfrak{H}		evening set	3270 Oct 24 14:12	16° \mathbb{M} 58'13	
retrograde	3265 Jul 23 00:25	5° \mathfrak{H} 41'36		desc. node	3270 Oct 30 22:20	21° \mathbb{M} 13'19	
opposition	3265 Aug 22 03:42	0° \mathfrak{H} 40'58	-6°-44'-42	max. Earth dist.	3270 Nov 10 15:54	28° \mathbb{M} 29'48	2.54541 AU
greatest brilliancy	3265 Aug 23 07:34	0° \mathfrak{H} 22'07	-2.8m		3270 Nov 12 20:43	0° \mathfrak{A}	
	3265 Aug 24 16:14	30° \mathfrak{R} \approx					
min. Earth dist.	3265 Aug 25 19:21	29° \approx 41'44	0.38100 AU	conjunction	3270 Dec 12 03:23	20° \mathfrak{A} 23'25	0°-24'-8
direct	3265 Sep 22 04:14	25° \approx 17'10		minimum elong	3270 Dec 12 02:23	20° \mathfrak{A} 21'39	0°24'08
	3265 Oct 19 07:03	0° \mathfrak{H}			3270 Dec 25 14:11	0° \mathfrak{Z}	
	3265 Dec 17 01:04	0° \mathfrak{Y}		morning rise	3271 Feb 02 15:49	28° \mathfrak{Z} 44'47	
asc. node	3266 Jan 11 17:40	16° \mathfrak{Y} 30'03			3271 Feb 04 07:52	0° \approx	
	3266 Feb 01 01:15	0° \mathfrak{B}			3271 Mar 15 15:10	0° \mathfrak{H}	
	3266 Mar 17 17:02	0° \mathbb{I}			3271 Apr 23 05:03	0° \mathfrak{Y}	

	3271 May 31 21:52	0°♄	direct	3276 May 29 17:18	19°♂32'04	
	3271 Jul 10 17:52	0°♂	desc. node	3276 Jun 21 18:19	22°♂34'22	
	3271 Aug 22 00:20	0°♄		3276 Jul 14 02:57	0°♂	
asc. node	3271 Sep 03 14:43	8°♄26'12		3276 Sep 09 07:00	0°♄	
	3271 Oct 08 06:27	0°♂		3276 Oct 24 13:48	0°♄	
	3271 Dec 19 08:36	0°♄		3276 Dec 04 12:37	0°♄	
retrograde	3271 Dec 31 21:52	0°♄59'58		3277 Jan 12 09:02	0°♄	
	3272 Jan 13 00:30	30°♂♂		3277 Feb 19 12:38	0°♄	
min. Earth dist.	3272 Feb 06 18:08	22°♂22'34	0.64642 AU	3277 Mar 30 01:40	0°♄	
greatest brilliancy	3272 Feb 09 08:24	21°♂20'22	-1.4m	3277 Apr 19 08:32	15°♄26'26	
opposition	3272 Feb 10 02:20	21°♂02'26	4°35'53	3277 Apr 25 12:23	20°♄04'10	
direct	3272 Mar 20 05:43	11°♂48'09		3277 May 08 20:57	0°♂	
	3272 May 24 10:03	0°♄				
	3272 Jul 20 19:18	0°♂	conjunction	3277 Jun 19 16:22	0°♄06'44	0°33'49
	3272 Sep 08 10:27	0°♂	minimum elong	3277 Jun 19 14:32	0°♄03'31	0°33'47
desc. node	3272 Sep 16 20:59	5°♂22'56		3277 Jun 19 12:32	0°♄	
	3272 Oct 24 00:54	0°♄	max. Earth dist.	3277 Jul 23 09:43	23°♄21'36	2.55049 AU
	3272 Dec 05 14:54	0°♄		3277 Aug 02 06:29	0°♂	
evening set	3272 Dec 08 00:59	1°♄45'38	morning rise	3277 Aug 13 06:33	7°♂19'27	
max. Earth dist.	3272 Dec 25 02:16	14°♄19'30		3277 Sep 17 02:21	0°♄	
	3273 Jan 14 21:36	0°♄		3277 Nov 03 23:11	0°♂	
				3277 Dec 24 13:34	0°♂	
conjunction	3273 Feb 03 08:06	14°♄56'08	-1°-3'-11	3278 Feb 20 08:39	0°♄	
minimum elong	3273 Feb 03 07:00	14°♄54'00	1°03'11	3278 Apr 22 09:44	16°♄27'52	
	3273 Feb 22 15:53	0°♄	retrograde	3278 May 09 17:16	14°♄35'16	
	3273 Apr 01 18:11	0°♄	desc. node	3278 May 28 18:03	8°♄44'26	0°-50'-26
morning rise	3273 Apr 11 14:45	7°♄45'50	opposition	3278 May 29 02:46	8°♄36'29	-1.8m
	3273 May 10 01:41	0°♄	greatest brilliancy	3278 Jun 05 11:57	5°♄54'59	0.54836 AU
	3273 Jun 18 11:31	0°♂	min. Earth dist.	3278 Jun 28 01:19	30°♂♂	
asc. node	3273 Jul 21 13:14	24°♂07'58	direct	3278 Jul 07 14:52	29°♂22'40	
	3273 Jul 29 19:58	0°♄		3278 Jul 17 08:11	0°♄	
	3273 Sep 12 01:31	0°♂		3278 Sep 26 16:00	0°♄	
	3273 Oct 31 00:43	0°♄		3278 Nov 10 08:17	0°♄	
	3274 Jan 03 22:45	0°♂		3278 Dec 20 16:45	0°♄	
retrograde	3274 Feb 03 08:11	5°♂02'12		3279 Jan 28 19:08	0°♄	
	3274 Mar 03 08:23	30°♂♄		3279 Mar 09 04:07	0°♄	
opposition	3274 Mar 15 12:10	25°♄23'37	4°04'28	3279 Mar 13 10:56	3°♄13'05	
greatest brilliancy	3274 Mar 15 13:59	25°♄21'49	-1.2m	3279 Apr 18 19:03	0°♂	
min. Earth dist.	3274 Mar 16 01:25	25°♄10'27	0.67880 AU	3279 May 31 05:00	0°♄	
direct	3274 Apr 25 13:11	15°♄31'42	evening set	3279 Jun 15 02:31	10°♄13'26	
	3274 Jun 20 23:18	0°♂		3279 Jul 14 12:48	0°♂	
desc. node	3274 Aug 04 19:16	22°♂43'14				
	3274 Aug 17 09:31	0°♂	conjunction	3279 Aug 05 15:49	14°♂33'20	1°05'42
	3274 Oct 03 22:54	0°♄	minimum elong	3279 Aug 05 15:04	14°♂32'06	1°05'42
	3274 Nov 16 00:40	0°♄	max. Earth dist.	3279 Aug 20 14:58	24°♂16'25	2.64044 AU
	3274 Dec 26 06:35	0°♄		3279 Aug 29 12:01	0°♄	
	3275 Feb 02 20:29	0°♄	morning rise	3279 Sep 21 23:28	15°♄01'07	
evening set	3275 Feb 07 13:36	3°♄42'50		3279 Oct 15 14:56	0°♂	
	3275 Mar 12 19:12	0°♄		3279 Dec 02 12:36	0°♂	
				3280 Jan 20 09:28	0°♄	
conjunction	3275 Apr 17 02:16	27°♄41'29	0°-33'-54	3280 Mar 11 16:18	0°♄	
minimum elong	3275 Apr 17 05:12	27°♄47'11	0°33'53	3280 Mar 26 15:42	8°♄10'59	
	3275 Apr 20 01:42	0°♄		3280 May 12 13:03	0°♄	
	3275 May 29 12:27	0°♂	retrograde	3280 Jun 21 13:00	8°♄18'42	
max. Earth dist.	3275 Jun 08 09:36	7°♂19'01	2.41824 AU	3280 Jul 23 09:08	2°♄36'27	-5°-36'-52
asc. node	3275 Jun 08 13:16	7°♂25'46	opposition	3280 Jul 25 06:05	2°♄02'22	-2.6m
morning rise	3275 Jun 23 17:33	18°♂30'01	greatest brilliancy	3280 Jul 30 14:53	0°♄25'46	0.41764 AU
	3275 Jul 09 19:35	0°♄	min. Earth dist.	3280 Aug 01 02:32	30°♂♄	
	3275 Aug 22 10:35	0°♂	direct	3280 Aug 26 11:44	25°♄52'04	
	3275 Oct 07 20:34	0°♄		3280 Sep 20 14:13	0°♄	
	3275 Nov 27 07:52	0°♂		3280 Nov 17 22:51	0°♄	
	3276 Jan 28 20:39	0°♂		3281 Jan 01 00:54	0°♄	
retrograde	3276 Mar 10 06:01	8°♂29'52	asc. node	3281 Jan 28 10:14	19°♄25'37	
	3276 Apr 17 02:08	30°♂♄		3281 Feb 12 07:20	0°♄	
opposition	3276 Apr 18 05:23	29°♂33'37	2°20'09	3281 Mar 27 00:37	0°♂	
greatest brilliancy	3276 Apr 18 17:49	29°♂21'33	-1.4m	3281 May 10 01:13	0°♄	
min. Earth dist.	3276 Apr 22 14:40	27°♂51'30	0.64484 AU	3281 Jun 24 12:59	0°♂	

evening set	3281 Jul 27 11:39	21°♂14'50			3286 Mar 23 11:24	0°♂	
	3281 Aug 10 04:10	0°♂			3286 May 01 09:01	0°♀	
					3286 Jun 09 08:55	0°♂	
conjunction	3281 Sep 12 04:05	21°♂00'27	1°04'03		3286 Jul 19 14:19	0°♂	
minimum elong	3281 Sep 12 04:49	21°♂01'37	1°04'02		3286 Aug 31 19:26	0°♂	
max. Earth dist.	3281 Sep 12 02:16	20°♂57'34	2.67667 AU	asc. node	3286 Sep 20 07:34	12°♂22'15	
	3281 Sep 26 07:29	0°♂			3286 Oct 21 21:24	0°♂	
morning rise	3281 Oct 26 14:26	19°♂18'39		retrograde	3286 Dec 17 21:45	16°♂44'03	
	3281 Nov 12 06:50	0°♂		min. Earth dist.	3287 Jan 21 21:23	8°♂43'44	0.61593 AU
	3281 Dec 28 16:15	0°♂		opposition	3287 Jan 26 17:49	6°♂48'05	4°24'32
desc. node	3282 Feb 11 15:40	29°♂30'05		greatest brilliancy	3287 Jan 25 16:43	7°♂13'03	-1.5m
	3282 Feb 12 09:48	0°♂			3287 Feb 16 00:47	30°♂♂	
	3282 Mar 29 16:39	0°♂		direct	3287 Mar 05 18:27	27°♂56'34	
	3282 May 14 05:04	0°♂			3287 Mar 24 18:01	0°♂	
	3282 Jul 01 12:20	0°♀			3287 Jun 06 20:29	0°♂	
retrograde	3282 Sep 10 05:23	25°♀19'55			3287 Jul 30 06:32	0°♂	
min. Earth dist.	3282 Oct 07 02:05	20°♀53'33	0.38193 AU		3287 Sep 16 20:47	0°♂	
opposition	3282 Oct 11 20:04	19°♀33'13	-4°-16'-58	desc. node	3287 Oct 04 11:50	11°♂26'09	
greatest brilliancy	3282 Oct 11 01:12	19°♀46'34	-2.8m		3287 Nov 01 04:29	0°♂	
direct	3282 Nov 10 11:23	14°♀26'41		evening set	3287 Nov 20 00:08	13°♂02'11	
asc. node	3282 Dec 16 09:10	21°♀54'08		max. Earth dist.	3287 Dec 04 03:56	23°♂04'16	2.46996 AU
	3283 Jan 04 03:50	0°♂			3287 Dec 13 18:58	0°♂	
	3283 Feb 27 07:50	0°♂					
	3283 Apr 17 04:58	0°♂		conjunction	3288 Jan 11 22:56	21°♂30'11	0°-52'-4
	3283 Jun 04 08:23	0°♂		minimum elong	3288 Jan 11 21:03	21°♂26'40	0°52'04
	3283 Jul 22 10:33	0°♂			3288 Jan 23 05:23	0°♂	
evening set	3283 Sep 03 03:14	26°♂48'38			3288 Mar 02 04:04	0°♂	
	3283 Sep 08 04:13	0°♂		morning rise	3288 Mar 12 19:02	8°♂18'15	
max. Earth dist.	3283 Oct 05 09:38	17°♂21'27	2.65825 AU		3288 Apr 09 10:07	0°♀	
				greatest brilliancy	3288 May 04 15:02	19°♀44'28	1.2m
conjunction	3283 Oct 18 08:54	25°♂43'10	0°38'15		3288 May 17 20:08	0°♂	
minimum elong	3283 Oct 18 09:55	25°♂44'49	0°38'14		3288 Jun 26 07:51	0°♂	
	3283 Oct 24 23:17	0°♂			3288 Aug 06 20:33	0°♂	
morning rise	3283 Dec 02 02:04	25°♂07'01		asc. node	3288 Aug 07 07:11	0°♂18'34	
	3283 Dec 09 08:50	0°♂			3288 Sep 20 17:04	0°♂	
desc. node	3283 Dec 30 14:49	14°♂24'42			3288 Nov 11 07:08	0°♂	
	3284 Jan 22 04:32	0°♂		retrograde	3289 Jan 21 01:26	22°♂18'34	
	3284 Mar 04 12:15	0°♂		min. Earth dist.	3289 Mar 01 09:25	12°♂52'51	0.67386 AU
	3284 Apr 14 14:49	0°♂		opposition	3289 Mar 02 08:45	12°♂29'33	4°25'45
	3284 May 25 02:05	0°♀		greatest brilliancy	3289 Mar 02 03:11	12°♂35'07	-1.2m
	3284 Jul 05 01:14	0°♂		direct	3289 Apr 11 19:29	2°♂49'10	
	3284 Aug 18 03:25	0°♂			3289 Jul 04 07:31	0°♂	
	3284 Oct 20 15:23	0°♂		desc. node	3289 Aug 21 10:38	27°♂06'17	
asc. node	3284 Nov 02 07:37	1°♂51'16			3289 Aug 26 04:49	0°♂	
retrograde	3284 Nov 06 13:06	1°♂59'02			3289 Oct 11 17:53	0°♂	
	3284 Nov 22 23:57	30°♂♂			3289 Nov 23 13:04	0°♂	
min. Earth dist.	3284 Dec 06 01:37	25°♂58'21	0.49985 AU		3290 Jan 02 18:19	0°♂	
greatest brilliancy	3284 Dec 13 02:47	23°♂22'22	-2.1m	evening set	3290 Jan 12 05:33	7°♂16'15	
opposition	3284 Dec 14 02:56	23°♂00'02	2°10'26		3290 Feb 10 09:03	0°♂	
direct	3285 Jan 17 06:39	15°♂39'25					
	3285 Mar 12 21:20	0°♂		conjunction	3290 Mar 18 13:36	28°♂35'35	0°-56'-17
	3285 May 10 12:48	0°♂		minimum elong	3290 Mar 18 16:30	28°♂41'18	0°56'17
	3285 Jul 01 06:14	0°♂			3290 Mar 20 08:20	0°♀	
	3285 Aug 19 12:21	0°♂		max. Earth dist.	3290 Apr 16 21:46	21°♀40'36	2.37264 AU
	3285 Oct 05 17:32	0°♂			3290 Apr 27 14:23	0°♂	
evening set	3285 Oct 09 06:01	2°♂17'27		morning rise	3290 May 28 17:10	23°♂48'01	
max. Earth dist.	3285 Oct 29 21:31	15°♂54'11	2.58691 AU		3290 Jun 05 23:38	0°♂	
desc. node	3285 Nov 16 13:18	27°♂47'06		asc. node	3290 Jun 25 05:16	14°♂11'09	
	3285 Nov 19 19:22	0°♂			3290 Jul 17 05:37	0°♂	
					3290 Aug 29 22:54	0°♂	
conjunction	3285 Nov 25 02:01	3°♂36'37	0°-4'-56		3290 Oct 15 22:50	0°♂	
minimum elong	3285 Nov 25 01:49	3°♂36'16	0°04'56		3290 Dec 07 19:34	0°♂	
behind sun begin	3285 Nov 24 06:30	3°♂03'09		retrograde	3291 Feb 24 19:14	25°♂26'33	
behind sun end	3285 Nov 25 21:09	4°♂09'25		opposition	3291 Apr 05 09:15	16°♂11'02	3°09'14
	3286 Jan 01 18:03	0°♂		greatest brilliancy	3291 Apr 05 19:34	16°♂00'54	-1.3m
morning rise	3286 Jan 13 02:17	8°♂09'41		min. Earth dist.	3291 Apr 08 06:54	15°♂02'40	0.66593 AU
	3286 Feb 11 19:41	0°♂		direct	3291 May 16 21:33	6°♂09'23	

desc. node	3291 Jul 09 09:13	19° Ω 43'33			3296 Aug 17 00:27	0° \mathfrak{M}		
	3291 Jul 30 19:52	0° \mathfrak{M}						
	3291 Sep 19 23:35	0° \mathfrak{X}		conjunction	3296 Aug 28 18:07	7° \mathfrak{M} 30'43	1°07'58	
	3291 Nov 03 01:19	0° \mathfrak{Z}		minimum elong	3296 Aug 28 18:23	7° \mathfrak{M} 31'10	1°07'57	
	3291 Dec 13 14:49	0° \approx		max. Earth dist.	3296 Sep 03 06:05	11° \mathfrak{M} 01'21	2.66900 AU	
	3292 Jan 21 07:05	0° \mathfrak{H}			3296 Oct 03 01:47	0° Ω		
	3292 Feb 28 07:26	0° \mathfrak{Y}		morning rise	3296 Oct 12 21:38	6° Ω 14'28		
evening set	3292 Mar 23 05:24	18° \mathfrak{Y} 46'23			3296 Nov 19 07:11	0° \mathfrak{M}		
	3292 Apr 06 16:36	0° \mathfrak{B}			3297 Jan 05 09:42	0° \mathfrak{X}		
asc. node	3292 May 12 04:29	26° \mathfrak{B} 56'42			3297 Feb 21 12:53	0° \mathfrak{Z}		
	3292 May 16 07:07	0° Π		desc. node	3297 Feb 28 06:29	4° \mathfrak{Z} 15'42		
					3297 Apr 10 11:11	0° \approx		
conjunction	3292 May 28 02:06	8° Π 41'06	0°10'26		3297 Jun 01 00:01	0° \mathfrak{H}		
minimum elong	3292 May 28 01:19	8° Π 39'39	0°10'25	retrograde	3297 Aug 10 06:44	23° \mathfrak{H} 24'23		
behind sun begin	3292 May 27 05:08	8° Π 02'44		opposition	3297 Sep 09 08:59	18° \mathfrak{H} 26'40	-6°-29'-47	
behind sun end	3292 May 28 21:29	9° Π 16'31		greatest brilliancy	3297 Sep 09 17:16	18° \mathfrak{H} 21'10	-2.9m	
	3292 Jun 26 17:56	0° \mathfrak{S}		min. Earth dist.	3297 Sep 09 23:46	18° \mathfrak{H} 16'51	0.37191 AU	
max. Earth dist.	3292 Jul 09 09:17	8° \mathfrak{S} 51'16	2.50219 AU	direct	3297 Oct 09 05:52	13° \mathfrak{H} 28'08		
morning rise	3292 Jul 26 05:58	20° \mathfrak{S} 27'21			3297 Dec 03 08:54	0° \mathfrak{Y}		
	3292 Aug 09 08:54	0° Ω		asc. node	3298 Jan 02 00:55	16° \mathfrak{Y} 37'11		
	3292 Sep 24 07:07	0° \mathfrak{M}			3298 Jan 23 16:44	0° \mathfrak{B}		
	3292 Nov 11 19:18	0° Ω			3298 Mar 11 04:26	0° Π		
	3293 Jan 03 16:34	0° \mathfrak{M}			3298 Apr 26 08:08	0° \mathfrak{S}		
	3293 Mar 22 15:47	0° \mathfrak{X}			3298 Jun 12 03:06	0° Ω		
retrograde	3293 Apr 04 05:43	0° \mathfrak{X} 54'57			3298 Jul 29 12:19	0° \mathfrak{M}		
	3293 Apr 16 08:28	30° \mathfrak{R} \mathfrak{M}		evening set	3298 Aug 19 20:29	13° \mathfrak{M} 28'33		
opposition	3293 May 11 19:44	22° \mathfrak{M} 38'11	0°35'45		3298 Sep 14 22:35	0° Ω		
greatest brilliancy	3293 May 12 01:18	22° \mathfrak{M} 32'56	-1.6m	max. Earth dist.	3298 Sep 26 06:40	7° Ω 12'56	2.67196 AU	
min. Earth dist.	3293 May 18 09:21	20° \mathfrak{M} 09'47	0.59281 AU					
desc. node	3293 May 26 08:19	17° \mathfrak{M} 21'51		conjunction	3298 Oct 04 07:28	12° Ω 20'46	0°50'39	
direct	3293 Jun 21 15:45	12° \mathfrak{M} 51'47		minimum elong	3298 Oct 04 08:33	12° Ω 22'29	0°50'38	
	3293 Aug 19 05:19	0° \mathfrak{X}			3298 Oct 31 17:53	0° \mathfrak{M}		
	3293 Oct 08 19:46	0° \mathfrak{Z}		morning rise	3298 Nov 17 12:41	10° \mathfrak{M} 55'20		
	3293 Nov 20 06:26	0° \approx			3298 Dec 16 10:39	0° \mathfrak{X}		
	3293 Dec 29 18:28	0° \mathfrak{H}		desc. node	3299 Jan 16 05:23	20° \mathfrak{X} 42'09		
	3294 Feb 06 08:23	0° \mathfrak{Y}			3299 Jan 29 20:17	0° \mathfrak{Z}		
	3294 Mar 17 06:56	0° \mathfrak{B}			3299 Mar 14 00:19	0° \approx		
asc. node	3294 Mar 30 03:59	9° \mathfrak{B} 44'21			3299 Apr 25 04:45	0° \mathfrak{H}		
	3294 Apr 26 11:49	0° Π			3299 Jun 06 01:51	0° \mathfrak{Y}		
evening set	3294 May 26 02:03	21° Π 16'12			3299 Jul 19 10:21	0° \mathfrak{B}		
	3294 Jun 07 12:34	0° \mathfrak{S}			3299 Sep 09 20:21	0° Π		
				retrograde	3299 Oct 18 16:24	9° Π 31'42		
conjunction	3294 Jul 19 19:46	28° \mathfrak{S} 51'01	0°57'56	min. Earth dist.	3299 Nov 15 04:47	4° Π 21'42	0.44642 AU	
minimum elong	3294 Jul 19 18:20	28° \mathfrak{S} 48'36	0°57'56	asc. node	3299 Nov 20 01:11	2° Π 42'36		
	3294 Jul 21 13:07	0° Ω		opposition	3299 Nov 23 09:52	1° Π 33'04	0°12'03	
max. Earth dist.	3294 Aug 10 13:32	13° Ω 14'02	2.61144 AU	greatest brilliancy	3300 Jan 13 12:50	27° \mathfrak{B} 15'16	-2.9m	
	3294 Sep 05 09:09	0° \mathfrak{M}			3299 Nov 28 01:19	30° \mathfrak{R} \mathfrak{B}		
morning rise	3294 Sep 07 07:58	1° \mathfrak{M} 15'18		direct	3299 Dec 25 14:35	25° \mathfrak{B} 04'33		
	3294 Oct 22 15:58	0° Ω			3300 Jan 23 20:47	0° Π		
	3294 Dec 10 06:58	0° \mathfrak{M}			3300 Mar 30 00:39	0° \mathfrak{S}		
	3295 Jan 30 02:58	0° \mathfrak{X}			3300 May 21 05:24	0° Ω		
	3295 Mar 28 23:30	0° \mathfrak{Z}			3300 Jul 10 01:36	0° \mathfrak{M}		
desc. node	3295 Apr 13 07:43	6° \mathfrak{Z} 19'53			3300 Aug 27 13:49	0° Ω		
retrograde	3295 May 26 16:00	15° \mathfrak{Z} 38'34		evening set	3300 Sep 25 14:40	18° Ω 24'28		
opposition	3295 Jun 29 09:00	9° \mathfrak{Z} 03'56	-3°-41'-6		3300 Oct 13 13:30	0° \mathfrak{M}		
greatest brilliancy	3295 Jun 30 22:37	8° \mathfrak{Z} 32'26	-2.2m	max. Earth dist.	3300 Oct 20 10:52	4° \mathfrak{M} 29'45	2.62079 AU	
min. Earth dist.	3295 Jul 07 19:16	6° \mathfrak{Z} 15'25	0.46779 AU					
direct	3295 Aug 05 09:20	0° \mathfrak{Z} 59'53		conjunction	3300 Nov 10 09:58	18° \mathfrak{M} 21'08	0°13'22	
	3295 Oct 20 03:56	0° \approx		minimum elong	3300 Nov 10 10:25	18° \mathfrak{M} 21'54	0°13'22	
	3295 Dec 03 10:37	0° \mathfrak{H}		behind sun begin	3300 Nov 09 23:26	18° \mathfrak{M} 03'35		
	3296 Jan 13 08:42	0° \mathfrak{Y}		behind sun end	3300 Nov 10 21:24	18° \mathfrak{M} 40'13		
asc. node	3296 Feb 15 01:55	24° \mathfrak{Y} 12'09			3300 Nov 27 17:14	0° \mathfrak{X}		
	3296 Feb 22 23:30	0° \mathfrak{B}		desc. node	3300 Dec 04 04:13	4° \mathfrak{X} 23'58		
	3296 Apr 04 14:04	0° Π		morning rise	3300 Dec 27 02:43	20° \mathfrak{X} 15'29		
	3296 May 17 19:17	0° \mathfrak{S}			3301 Jan 09 22:37	0° \mathfrak{Z}		
	3296 Jul 01 17:22	0° Ω			3301 Feb 20 09:56	0° \approx		
evening set	3296 Jul 11 15:48	6° Ω 30'02			3301 Apr 01 12:19	0° \mathfrak{H}		

	3301 May 10 20:29	0°Υ		direct	3306 May 04 07:35	23°η15'48	
	3301 Jun 19 07:48	0°Ϣ			3306 Jun 09 14:02	0°♄	
	3301 Jul 30 06:56	0°Π		desc. node	3306 Jul 27 00:53	21°♄09'16	
	3301 Sep 13 11:45	0°☿			3306 Aug 12 02:04	0°♆	
asc. node	3301 Oct 08 00:00	13°☿49'52			3306 Sep 29 15:35	0°♁	
	3301 Nov 21 02:15	0°♈			3306 Nov 12 00:49	0°♄	
retrograde	3301 Dec 03 23:29	1°♈06'46			3306 Dec 22 09:17	0°≈	
	3301 Dec 16 10:19	30°♁☿			3307 Jan 29 23:45	0°✠	
min. Earth dist.	3302 Jan 05 22:13	23°☿49'03	0.57628 AU	evening set	3307 Feb 24 13:46	20°✠12'54	
greatest brilliancy	3302 Jan 10 23:24	21°☿50'39	-1.7m		3307 Mar 08 22:38	0°Υ	
opposition	3302 Jan 12 05:08	21°☿21'29	3°54'18		3307 Apr 16 05:36	0°Ϣ	
direct	3302 Feb 17 21:50	12°☿59'08					
	3302 Apr 20 16:26	0°♈		conjunction	3307 May 04 04:03	13°Ϣ46'41	0°-17'-42
	3302 Jun 17 21:44	0°η		minimum elong	3307 May 04 05:39	13°Ϣ49'45	0°17'43
	3302 Aug 08 03:13	0°♄			3307 May 25 16:55	0°Π	
	3302 Sep 25 01:03	0°♆		asc. node	3307 May 30 20:20	3°Π49'01	
desc. node	3302 Oct 22 02:47	17°♆46'08		max. Earth dist.	3307 Jun 23 05:34	20°Π52'44	2.44885 AU
evening set	3302 Nov 03 19:11	26°♆18'26			3307 Jul 06 00:22	0°☿	
	3302 Nov 09 05:17	0°♁		morning rise	3307 Jul 07 18:36	1°☿14'37	
max. Earth dist.	3302 Nov 19 08:19	6°♁58'07	2.52007 AU		3307 Aug 18 14:03	0°♈	
	3302 Dec 21 22:10	0°♄			3307 Oct 03 17:33	0°η	
					3307 Nov 22 06:03	0°♄	
conjunction	3302 Dec 23 14:56	1°♄13'34	0°-35'-4		3308 Jan 18 11:01	0°♆	
minimum elong	3302 Dec 23 13:29	1°♄10'57	0°35'03	retrograde	3308 Mar 19 22:19	16°♆40'34	
	3303 Jan 31 13:42	0°≈		opposition	3308 Apr 27 11:33	7°♆56'52	1°45'45
morning rise	3303 Feb 16 15:51	12°≈12'59		greatest brilliancy	3308 Apr 27 23:13	7°♆45'39	-1.4m
	3303 Mar 11 17:55	0°✠		min. Earth dist.	3308 May 02 16:08	5°♆57'03	0.62909 AU
	3303 Apr 19 04:36	0°Υ			3308 May 21 04:41	30°♁♄	
	3303 May 27 18:12	0°Ϣ		direct	3308 Jun 07 20:22	27°♄58'03	
	3303 Jul 06 09:38	0°Π		desc. node	3308 Jun 12 23:49	28°♄08'05	
	3303 Aug 17 06:38	0°☿			3308 Jun 26 07:56	0°♆	
asc. node	3303 Aug 25 22:31	5°☿55'12			3308 Sep 03 06:37	0°♁	
	3303 Oct 02 06:50	0°♈			3308 Oct 19 20:06	0°♄	
	3303 Nov 29 04:07	0°η			3308 Nov 30 05:05	0°≈	
retrograde	3304 Jan 09 17:35	9°η14'15			3309 Jan 08 05:49	0°✠	
min. Earth dist.	3304 Feb 16 12:24	0°η18'06	0.65897 AU		3309 Feb 15 11:55	0°Υ	
	3304 Feb 17 06:31	30°♁♈			3309 Mar 26 03:09	0°Ϣ	
greatest brilliancy	3304 Feb 18 10:32	29°♈31'58	-1.3m	asc. node	3309 Apr 16 19:21	16°Ϣ27'06	
opposition	3304 Feb 19 00:02	29°♈18'27	4°35'56	evening set	3309 May 04 12:09	29°Ϣ37'11	
direct	3304 Mar 29 15:32	19°♈53'33			3309 May 05 00:32	0°Π	
	3304 May 14 15:31	0°η			3309 Jun 15 18:05	0°☿	
	3304 Jul 15 16:51	0°♄					
	3304 Sep 04 06:48	0°♆		conjunction	3309 Jul 02 07:04	11°☿29'54	0°44'29
desc. node	3304 Sep 08 01:24	2°♆22'21		minimum elong	3309 Jul 02 05:11	11°☿26'39	0°44'28
	3304 Oct 20 04:56	0°♁			3309 Jul 29 13:14	0°♈	
	3304 Dec 01 21:02	0°♄		max. Earth dist.	3309 Jul 31 10:53	1°♈16'19	2.57447 AU
evening set	3304 Dec 20 23:17	14°♄02'13		morning rise	3309 Aug 23 18:57	16°♈41'24	
	3305 Jan 11 03:42	0°≈			3309 Sep 13 07:55	0°η	
max. Earth dist.	3305 Jan 14 12:43	2°≈34'40	2.39174 AU		3309 Oct 30 21:50	0°♄	
	3305 Feb 18 20:57	0°✠			3309 Dec 19 14:27	0°♆	
					3310 Feb 11 19:42	0°♁	
conjunction	3305 Feb 19 02:20	0°✠10'34	-1°-4'-51	desc. node	3310 Apr 30 22:15	26°♁30'19	
minimum elong	3305 Feb 19 02:31	0°✠10'55	1°04'51	retrograde	3310 May 04 21:11	26°♁35'54	
	3305 Mar 28 22:08	0°Υ		opposition	3310 Jun 09 08:42	19°♁14'31	-1°-48'-8
morning rise	3305 Apr 30 01:08	25°Υ13'10		greatest brilliancy	3310 Jun 10 03:58	18°♁57'21	-2.0m
	3305 May 06 04:46	0°Ϣ		min. Earth dist.	3310 Jun 17 13:18	16°♁19'33	0.52088 AU
	3305 Jun 14 13:30	0°Π		direct	3310 Jul 18 10:16	10°♁13'55	
asc. node	3305 Jul 12 22:13	20°Π48'22			3310 Sep 17 20:05	0°♄	
	3305 Jul 25 19:33	0°☿			3310 Nov 04 08:37	0°≈	
	3305 Sep 07 18:04	0°♈			3310 Dec 15 14:24	0°✠	
	3305 Oct 25 17:28	0°η			3311 Jan 24 03:38	0°Υ	
	3305 Dec 22 12:23	0°♄		asc. node	3311 Mar 04 19:25	29°Υ58'20	
retrograde	3306 Feb 12 01:08	12°♄43'51			3311 Mar 04 20:19	0°Ϣ	
opposition	3306 Mar 24 01:14	3°♄12'34	3°47'10		3311 Apr 14 17:16	0°Π	
greatest brilliancy	3306 Mar 24 06:38	3°♄07'13	-1.2m		3311 May 27 08:05	0°☿	
min. Earth dist.	3306 Mar 25 10:51	2°♄39'17	0.67703 AU	evening set	3311 Jun 26 13:59	20°☿31'48	
	3306 Apr 01 07:00	30°♁η			3311 Jul 10 19:27	0°♈	

conjunction	3311 Aug 15 17:13	23°02'08" 1°07'50"	retrograde	3316 Nov 17 16:09	13°03'33"13	
minimum elong	3311 Aug 15 16:52	23°02'35" 1°07'51"	min. Earth dist.	3316 Dec 18 09:42	7°04'12"	0.52854 AU
	3311 Aug 25 20:22	0°00'	opposition	3316 Dec 25 22:55	4°02'33"	2°58'19"
max. Earth dist.	3311 Aug 27 05:24	0°00'53"05 2.65289 AU	greatest brilliancy	3316 Dec 24 17:53	4°04'10"	-1.9m
morning rise	3311 Oct 01 02:25	23°00'09"00		3317 Jan 07 00:42	30°00'00"	
	3311 Oct 11 21:44	0°00'	direct	3317 Jan 30 02:18	26°02'27"22	
	3311 Nov 28 12:19	0°00'		3317 Feb 23 23:39	0°00'	
	3312 Jan 15 14:39	0°00'		3317 May 04 08:45	0°00'	
	3312 Mar 04 22:17	0°00'		3317 Jun 26 17:52	0°00'	
desc. node	3312 Mar 17 21:14	7°03'36"54		3317 Aug 15 14:25	0°00'	
	3312 Apr 27 10:25	0°00'		3317 Oct 02 01:17	0°00'	
retrograde	3312 Jul 09 20:08	23°00'34"46	evening set	3317 Oct 18 21:44	11°00'01"27	
opposition	3312 Aug 09 13:40	18°00'19"28 -6°-26'-12"	max. Earth dist.	3317 Nov 06 11:03	23°00'24"39	2.56474 AU
greatest brilliancy	3312 Aug 11 05:00	17°00'51"38 -2.7m	desc. node	3317 Nov 07 18:24	24°00'17"33	
min. Earth dist.	3312 Aug 15 04:36	16°00'44"23 0.39468 AU		3317 Nov 16 04:09	0°00'	
direct	3312 Sep 10 21:46	12°00'22"52				
	3312 Nov 05 21:51	0°00'	conjunction	3317 Dec 05 14:29	13°00'24"49	0°-15'-59"
	3312 Dec 24 15:11	0°00'	minimum elong	3317 Dec 05 13:50	13°00'23"42	0°15'59"
asc. node	3313 Jan 19 18:02	17°00'43"41	behind sun begin	3317 Dec 05 10:33	13°00'17"58	
	3313 Feb 06 13:21	0°00'	behind sun end	3317 Dec 05 17:07	13°00'29"25	
	3313 Mar 22 04:33	0°00'		3317 Dec 29 00:53	0°00'	
	3313 May 05 18:45	0°00'	morning rise	3318 Jan 25 09:33	19°00'55"18	
	3313 Jun 20 15:15	0°00'		3318 Feb 07 22:54	0°00'	
evening set	3313 Aug 06 03:57	29°00'47"57		3318 Mar 19 10:21	0°00'	
	3313 Aug 06 11:32	0°00'		3318 Apr 27 03:33	0°00'	
max. Earth dist.	3313 Sep 18 07:25	27°00'12"53 2.67727 AU		3318 Jun 04 22:56	0°00'	
				3318 Jul 14 21:30	0°00'	
conjunction	3313 Sep 21 06:55	29°00'06"33 1°00'03"		3318 Aug 26 10:09	0°00'	
minimum elong	3313 Sep 21 07:50	29°00'08"01 1°00'03"	asc. node	3318 Sep 11 15:25	10°00'40"21	
	3313 Sep 22 16:32	0°00'		3318 Oct 13 17:36	0°00'	
morning rise	3313 Nov 04 12:22	27°00'22"41	retrograde	3318 Dec 27 00:56	25°00'29"04	
	3313 Nov 08 14:05	0°00'	min. Earth dist.	3319 Feb 01 01:47	17°00'07"13	0.63401 AU
	3313 Dec 24 16:56	0°00'	greatest brilliancy	3319 Feb 04 04:28	15°00'52"42	-1.4m
desc. node	3314 Feb 02 20:28	26°00'37"18	opposition	3319 Feb 05 01:45	15°00'31"25	4°33'17"
	3314 Feb 07 21:31	0°00'	direct	3319 Mar 15 17:19	6°00'26"35	
	3314 Mar 24 06:30	0°00'		3319 May 31 04:44	0°00'	
	3314 May 07 04:50	0°00'		3319 Jul 25 17:07	0°00'	
	3314 Jun 20 22:35	0°00'		3319 Sep 12 22:23	0°00'	
	3314 Aug 11 04:19	0°00'	desc. node	3319 Sep 25 17:20	8°00'12"41	
retrograde	3314 Sep 26 09:38	12°00'47"15		3319 Oct 28 11:21	0°00'	
min. Earth dist.	3314 Oct 22 21:00	8°00'14"41 0.39984 AU	evening set	3319 Dec 01 12:21	23°00'48"10	
opposition	3314 Oct 29 12:59	6°00'13"00 -2°-33'-30"		3319 Dec 10 02:45	0°00'	
greatest brilliancy	3314 Oct 28 17:57	6°00'27"34 -2.7m	max. Earth dist.	3319 Dec 16 08:30	4°00'32"22	2.44109 AU
direct	3314 Nov 28 23:43	0°00'40"46		3320 Jan 19 12:03	0°00'	
asc. node	3314 Dec 07 16:35	1°00'10"44				
	3315 Feb 19 01:46	0°00'	conjunction	3320 Jan 25 17:29	4°00'44"37	0°-59'-27"
	3315 Apr 11 16:35	0°00'	minimum elong	3320 Jan 25 15:51	4°00'41"28	0°59'27"
	3315 May 30 21:51	0°00'		3320 Feb 27 08:42	0°00'	
	3315 Jul 18 12:28	0°00'	morning rise	3320 Mar 30 05:44	25°00'03"05	
	3315 Sep 04 11:49	0°00'		3320 Apr 05 12:30	0°00'	
evening set	3315 Sep 12 07:09	4°00'56"17		3320 May 13 20:33	0°00'	
max. Earth dist.	3315 Oct 11 20:18	23°00'50"27 2.64704 AU		3320 Jun 22 06:05	0°00'	
	3315 Oct 21 08:23	0°00'	asc. node	3320 Jul 29 13:25	27°00'08"44	
				3320 Aug 02 14:30	0°00'	
conjunction	3315 Oct 27 14:40	4°00'04"56 0°29'45"		3320 Sep 15 23:33	0°00'	
minimum elong	3315 Oct 27 15:33	4°00'06"23 0°29'44"		3320 Nov 04 16:51	0°00'	
	3315 Dec 05 15:50	0°00'		3321 Jan 25 12:49	0°00'	
morning rise	3315 Dec 11 20:27	4°00'11"23	retrograde	3321 Jan 29 16:43	0°00'06"29	
desc. node	3315 Dec 21 19:13	10°00'58"15		3321 Feb 02 19:19	30°00'00"	
	3316 Jan 18 06:18	0°00'	opposition	3321 Mar 10 22:31	20°00'22"52	4°14'34"
	3316 Feb 29 06:22	0°00'	greatest brilliancy	3321 Mar 10 21:14	20°00'24"10	-1.2m
	3316 Apr 09 23:25	0°00'	min. Earth dist.	3321 Mar 10 19:49	20°00'25"34	0.67792 AU
	3316 May 19 23:03	0°00'	direct	3321 Apr 20 17:17	10°00'35"32	
	3316 Jun 29 05:15	0°00'		3321 Jun 27 05:44	0°00'	
	3316 Aug 10 15:19	0°00'	desc. node	3321 Aug 12 15:56	24°00'45"35	
	3316 Sep 30 04:46	0°00'		3321 Aug 21 12:25	0°00'	
asc. node	3316 Oct 24 16:41	9°00'46"07		3321 Oct 07 16:34	0°00'	

	3321 Nov 19 16:47	0°☾		max. Earth dist.	3326 Aug 17 11:18	20°♊08'01	2.62851 AU
	3321 Dec 29 23:31	0°♊			3326 Sep 01 17:13	0°♊	
evening set	3322 Jan 27 16:12	22°♊12'42		morning rise	3326 Sep 16 19:26	9°♊40'43	
	3322 Feb 06 14:20	0°♋			3326 Oct 18 20:52	0°♊	
	3322 Mar 16 13:10	0°♌			3326 Dec 06 00:53	0°♌	
					3327 Jan 24 14:48	0°♌	
conjunction	3322 Apr 05 05:20	15°♌30'26	0°-44'-56		3327 Mar 18 22:41	0°♌	
minimum elong	3322 Apr 05 08:44	15°♌37'06	0°44'54	desc. node	3327 Apr 04 11:59	8°♌19'01	
	3322 Apr 23 18:52	0°♌		retrograde	3327 Jun 11 04:55	28°♌22'41	
max. Earth dist.	3322 May 24 23:41	23°♌52'18	2.39491 AU	opposition	3327 Jul 13 21:58	22°♌16'39	-4°-48'-24
	3322 Jun 02 03:49	0°♍		greatest brilliancy	3327 Jul 15 18:02	21°♌41'32	-2.4m
morning rise	3322 Jun 13 21:20	8°♍41'52		min. Earth dist.	3327 Jul 21 22:35	19°♌44'31	0.43927 AU
asc. node	3322 Jun 16 13:28	10°♍39'41		direct	3327 Aug 18 09:29	14°♌54'25	
	3322 Jul 13 08:48	0°♍			3327 Oct 08 11:59	0°♍	
	3322 Aug 25 22:58	0°♎			3327 Nov 26 07:34	0°♋	
	3322 Oct 11 12:09	0°♎			3328 Jan 07 15:49	0°♌	
	3322 Dec 01 16:55	0°♏		asc. node	3328 Feb 06 10:23	21°♌36'12	
	3323 Feb 09 07:31	0°♏			3328 Feb 18 00:57	0°♋	
retrograde	3323 Mar 05 23:23	3°♏19'42			3328 Mar 31 04:00	0°♍	
	3323 Mar 28 21:17	30°♏♌			3328 May 13 17:58	0°♍	
opposition	3323 Apr 14 05:52	24°♏14'25	2°41'54		3328 Jun 27 22:19	0°♎	
greatest brilliancy	3323 Apr 14 17:44	24°♏02'51	-1.3m	evening set	3328 Jul 21 19:45	15°♎30'45	
min. Earth dist.	3323 Apr 17 23:39	22°♏46'49	0.65555 AU		3328 Aug 13 08:58	0°♎	
direct	3323 May 25 18:33	14°♏11'55					
desc. node	3323 Jun 30 14:38	20°♏58'52		conjunction	3328 Sep 07 01:40	15°♎45'30	1°06'07
	3323 Jul 22 19:26	0°♏		minimum elong	3328 Sep 07 02:14	15°♎46'24	1°06'08
	3323 Sep 14 22:11	0°♏		max. Earth dist.	3328 Sep 09 11:18	17°♎17'12	2.67425 AU
	3323 Oct 29 16:48	0°♏			3328 Sep 29 10:58	0°♏	
	3323 Dec 09 12:24	0°♐		morning rise	3328 Oct 21 18:14	14°♏11'27	
	3324 Jan 17 07:24	0°♋			3328 Nov 15 12:52	0°♏	
	3324 Feb 24 09:20	0°♌			3329 Jan 01 05:23	0°♏	
	3324 Apr 02 20:03	0°♋			3329 Feb 16 12:25	0°♏	
evening set	3324 Apr 08 19:39	4°♋35'53		desc. node	3329 Feb 19 11:41	1°♏55'47	
asc. node	3324 May 03 13:01	23°♋19'41			3329 Apr 03 18:46	0°♐	
	3324 May 12 12:10	0°♍			3329 May 21 03:43	0°♋	
					3329 Jul 14 09:52	0°♌	
conjunction	3324 Jun 11 06:11	21°♍39'20	0°24'34	retrograde	3329 Aug 29 05:52	11°♌52'53	
minimum elong	3324 Jun 11 04:37	21°♍36'32	0°24'32	min. Earth dist.	3329 Sep 26 08:13	7°♌17'25	0.37346 AU
	3324 Jun 23 00:09	0°♍		opposition	3329 Sep 28 21:24	6°♌36'12	-5°-27'-38
max. Earth dist.	3324 Jul 18 17:06	17°♍51'23	2.52959 AU	greatest brilliancy	3329 Sep 28 11:15	6°♌43'03	-2.9m
	3324 Aug 05 15:19	0°♎		direct	3329 Oct 28 06:21	1°♌41'14	
morning rise	3324 Aug 06 18:16	0°♎45'10		asc. node	3329 Dec 24 09:27	18°♌43'47	
	3324 Sep 20 10:28	0°♎			3330 Jan 14 09:42	0°♋	
	3324 Nov 07 11:48	0°♏			3330 Mar 05 01:45	0°♍	
	3324 Dec 28 20:26	0°♏			3330 Apr 21 12:39	0°♍	
	3325 Feb 28 15:04	0°♏			3330 Jun 07 23:47	0°♎	
retrograde	3325 Apr 15 07:11	10°♏01'53			3330 Jul 25 17:35	0°♎	
desc. node	3325 May 17 13:32	3°♏44'14		evening set	3330 Aug 29 01:13	21°♎35'52	
opposition	3325 May 22 05:18	2°♏02'39	0°-11'-57		3330 Sep 11 07:52	0°♏	
greatest brilliancy	3325 May 13 02:04	5°♏15'48	-1.8m	max. Earth dist.	3330 Oct 02 13:12	13°♏30'48	2.66547 AU
	3325 May 27 17:12	30°♏♌					
min. Earth dist.	3325 May 29 11:17	29°♏21'19	0.56926 AU	conjunction	3330 Oct 13 07:55	20°♏25'46	0°43'45
direct	3325 Jul 01 13:55	22°♏27'44		minimum elong	3330 Oct 13 08:59	20°♏27'29	0°43'44
	3325 Aug 06 21:24	0°♏			3330 Oct 28 03:33	0°♏	
	3325 Oct 02 15:54	0°♏		morning rise	3330 Nov 26 18:11	19°♏23'30	
	3325 Nov 15 05:43	0°♐			3330 Dec 12 16:51	0°♏	
	3325 Dec 25 04:36	0°♋		desc. node	3331 Jan 07 11:08	17°♏24'20	
	3326 Feb 02 00:34	0°♌			3331 Jan 25 19:10	0°♏	
	3326 Mar 13 03:49	0°♋			3331 Mar 09 11:46	0°♐	
asc. node	3326 Mar 21 11:21	6°♋16'13			3331 Apr 20 01:01	0°♋	
	3326 Apr 22 12:57	0°♍			3331 May 31 00:40	0°♌	
	3326 Jun 03 17:17	0°♍			3331 Jul 11 18:18	0°♋	
evening set	3326 Jun 07 17:40	2°♍47'04			3331 Aug 26 19:57	0°♍	
	3326 Jul 17 20:36	0°♎		retrograde	3331 Oct 31 08:26	23°♍12'32	
				asc. node	3331 Nov 11 07:50	22°♍19'11	
conjunction	3326 Jul 30 14:30	8°♎26'29	1°03'05	min. Earth dist.	3331 Nov 28 21:14	17°♍35'25	0.47597 AU
minimum elong	3326 Jul 30 13:26	8°♎24'45	1°03'04	greatest brilliancy	3331 Dec 06 11:06	14°♍52'41	-2.3m

opposition	3331 Dec 07 04:28	14° Π 37'06	1°26'09		3337 Jan 06 09:26	0° \approx	
direct	3332 Jan 09 12:17	7° Π 38'29			3337 Feb 14 01:51	0° H	
	3332 Mar 20 19:13	0° S		max. Earth dist.	3337 Feb 17 20:49	2° H 58'48	2.37202 AU
	3332 May 15 00:35	0° Ω					
	3332 Jul 04 20:37	0° M		conjunction	3337 Mar 06 19:45	16° H 21'30	-1°-1'-54
	3332 Aug 22 18:56	0° $\underline{\Omega}$		minimum elong	3337 Mar 06 21:34	16° H 25'05	1°01'53
evening set	3332 Oct 03 21:58	26° $\underline{\Omega}$ 44'38			3337 Mar 24 01:55	0° Υ	
	3332 Oct 08 22:33	0° M			3337 May 01 07:39	0° B	
max. Earth dist.	3332 Oct 26 10:41	11° M 28'09	2.60308 AU	morning rise	3337 May 17 03:08	12° B 11'37	
					3337 Jun 09 15:43	0° Π	
conjunction	3332 Nov 19 04:54	27° M 21'43	0°03'00	asc. node	3337 Jul 03 05:30	17° Π 22'09	
minimum elong	3332 Nov 19 04:59	27° M 21'50	0°03'00		3337 Jul 20 20:08	0° S	
behind sun begin	3332 Nov 18 09:30	26° M 48'54			3337 Sep 02 13:34	0° Ω	
behind sun end	3332 Nov 20 00:27	27° M 54'48			3337 Oct 19 19:39	0° M	
	3332 Nov 23 02:14	0° H			3337 Dec 13 01:55	0° $\underline{\Omega}$	
desc. node	3332 Nov 24 09:29	0° H 53'09		retrograde	3338 Feb 19 21:26	20° $\underline{\Omega}$ 28'54	
	3333 Jan 05 04:58	0° B		opposition	3338 Mar 31 16:18	11° $\underline{\Omega}$ 06'01	3°26'09
morning rise	3333 Jan 06 01:14	0° B 36'06		greatest brilliancy	3338 Apr 01 00:42	10° $\underline{\Omega}$ 57'44	-1.2m
	3333 Feb 15 11:37	0° \approx		min. Earth dist.	3338 Apr 02 22:07	10° $\underline{\Omega}$ 12'57	0.67213 AU
	3333 Mar 27 08:31	0° H		direct	3338 May 12 02:11	1° $\underline{\Omega}$ 05'52	
	3333 May 05 10:30	0° Υ		desc. node	3338 Jul 17 05:34	20° $\underline{\Omega}$ 18'51	
	3333 Jun 13 14:21	0° B			3338 Aug 05 02:34	0° M	
	3333 Jul 24 00:59	0° Π			3338 Sep 24 02:37	0° H	
	3333 Sep 05 19:23	0° S			3338 Nov 06 22:30	0° B	
asc. node	3333 Sep 28 07:33	13° S 46'32			3338 Dec 17 10:46	0° \approx	
	3333 Oct 29 23:47	0° Ω			3339 Jan 25 02:47	0° H	
retrograde	3333 Dec 12 17:00	10° Ω 43'12		greatest brilliancy	3339 Feb 24 12:47	24° H 01'21	1.2m
min. Earth dist.	3334 Jan 15 19:04	3° Ω 00'49	0.59933 AU		3339 Mar 04 02:17	0° Υ	
greatest brilliancy	3334 Jan 20 03:08	1° Ω 18'00	-1.6m	evening set	3339 Mar 12 17:48	6° Υ 49'14	
opposition	3334 Jan 21 06:50	0° Ω 50'32	4°14'47		3339 Apr 11 09:43	0° B	
	3334 Jan 23 10:11	30° R S					
direct	3334 Feb 27 17:29	22° S 11'08		conjunction	3339 May 19 05:12	28° B 44'31	0°-1'-19
	3334 Apr 08 00:05	0° Ω		minimum elong	3339 May 19 05:15	28° B 44'37	0°01'20
	3334 Jun 11 10:40	0° M		behind sun begin	3339 May 18 02:04	27° B 53'57	
	3334 Aug 02 21:16	0° $\underline{\Omega}$		behind sun end	3339 May 20 08:27	29° B 35'14	
	3334 Sep 20 05:29	0° M			3339 May 20 21:46	0° Π	
desc. node	3334 Oct 12 07:55	14° M 24'01		asc. node	3339 May 21 04:38	0° Π 12'47	
	3334 Nov 04 12:57	0° H			3339 Jul 01 05:35	0° S	
evening set	3334 Nov 13 09:24	6° H 04'46		max. Earth dist.	3339 Jul 04 05:54	2° S 07'44	2.47872 AU
max. Earth dist.	3334 Nov 27 20:55	16° H 11'03	2.49290 AU	morning rise	3339 Jul 19 18:00	12° S 57'18	
	3334 Dec 17 05:46	0° B			3339 Aug 13 18:26	0° Ω	
					3339 Sep 28 16:59	0° M	
conjunction	3335 Jan 03 19:12	12° B 49'04	0°-45'-16		3339 Nov 16 12:40	0° $\underline{\Omega}$	
minimum elong	3335 Jan 03 17:26	12° B 45'47	0°45'15		3340 Jan 09 17:48	0° M	
	3335 Jan 26 19:22	0° \approx		retrograde	3340 Mar 29 01:49	25° M 09'47	
morning rise	3335 Mar 02 20:54	26° \approx 53'04		opposition	3340 May 06 02:39	16° M 40'25	1°06'46
	3335 Mar 06 21:09	0° H		greatest brilliancy	3340 May 06 11:39	16° M 31'52	-1.5m
	3335 Apr 14 05:18	0° Υ		min. Earth dist.	3340 May 12 01:48	14° M 24'07	0.61006 AU
	3335 May 22 16:23	0° B		desc. node	3340 Jun 03 04:13	7° M 54'35	
	3335 Jul 01 04:36	0° Π		direct	3340 Jun 16 05:05	6° M 47'07	
	3335 Aug 11 18:35	0° S			3340 Aug 26 02:01	0° H	
asc. node	3335 Aug 16 07:14	3° S 08'32			3340 Oct 13 16:26	0° B	
	3335 Sep 25 22:29	0° Ω			3340 Nov 24 15:48	0° \approx	
	3335 Nov 18 04:10	0° M			3341 Jan 02 23:08	0° H	
retrograde	3336 Jan 17 10:39	17° M 16'55			3341 Feb 10 09:16	0° Υ	
min. Earth dist.	3336 Feb 25 02:17	8° M 03'43	0.66842 AU		3341 Mar 21 03:43	0° B	
opposition	3336 Feb 26 17:36	7° M 24'23	4°31'28	asc. node	3341 Apr 07 04:20	12° B 54'32	
greatest brilliancy	3336 Feb 26 08:33	7° M 33'27	-1.3m		3341 Apr 30 04:08	0° Π	
	3336 Mar 19 11:46	30° R Ω		evening set	3341 May 17 15:09	12° Π 41'43	
direct	3336 Apr 06 19:46	27° Ω 50'21			3341 Jun 11 00:09	0° S	
	3336 Apr 26 12:50	0° M					
	3336 Jul 09 01:57	0° $\underline{\Omega}$		conjunction	3341 Jul 13 01:47	22° S 03'54	0°52'59
desc. node	3336 Aug 29 06:50	29° $\underline{\Omega}$ 34'29		minimum elong	3341 Jul 13 00:06	22° S 01'03	0°52'57
	3336 Aug 29 23:22	0° M			3341 Jul 24 20:56	0° Ω	
	3336 Oct 15 07:23	0° H		max. Earth dist.	3341 Aug 06 23:32	8° Ω 42'54	2.59584 AU
	3336 Nov 27 02:36	0° B		morning rise	3341 Sep 01 19:19	25° Ω 35'51	
evening set	3337 Jan 02 17:16	27° B 12'13			3341 Sep 08 15:01	0° M	

	3341 Oct 25 23:46	0°♄			3347 Feb 06 20:11	0°♄		
	3341 Dec 13 23:52	0°♄			3347 Apr 04 13:33	0°♄		
	3342 Feb 03 23:16	0°♄			3347 May 25 06:16	0°♄		
	3342 Apr 08 20:41	0°♄			3347 Jul 13 12:22	0°♄		
desc. node	3342 Apr 21 03:47	3°♄46'45			3347 Aug 30 19:04	0°♄		
retrograde	3342 May 17 07:50	7°♄29'10		evening set	3347 Sep 20 11:25	13°♄05'29		
opposition	3342 Jun 20 20:19	0°♄32'32	-2°-51'-2		3347 Oct 16 18:06	0°♄		
greatest brilliancy	3342 Jun 22 02:30	0°♄06'25	-2.1m	max. Earth dist.	3347 Oct 17 09:58	0°♄25'47	2.63359 AU	
	3342 Jun 22 09:54	30°♄♂						
min. Earth dist.	3342 Jun 29 06:41	27°♄38'08	0.49164 AU	conjunction	3347 Nov 04 23:45	12°♄36'17	0°20'29	
direct	3342 Jul 28 20:23	22°♄00'09		minimum elong	3347 Nov 05 00:25	12°♄37'23	0°20'28	
	3342 Sep 03 03:38	0°♄			3347 Dec 01 00:17	0°♄		
	3342 Oct 27 07:38	0°♄		desc. node	3347 Dec 12 00:31	7°♄29'13		
	3342 Dec 08 23:12	0°♄		morning rise	3347 Dec 20 22:25	13°♄36'23		
	3343 Jan 18 04:24	0°♄			3348 Jan 13 10:34	0°♄		
asc. node	3343 Feb 23 02:08	26°♄52'11			3348 Feb 24 03:58	0°♄		
	3343 Feb 27 07:29	0°♄			3348 Apr 04 13:03	0°♄		
	3343 Apr 09 12:41	0°♄			3348 May 14 03:35	0°♄		
	3343 May 22 09:55	0°♄			3348 Jun 22 21:31	0°♄		
evening set	3343 Jul 06 12:13	0°♄16'46			3348 Aug 03 07:32	0°♄		
	3343 Jul 06 02:03	0°♄			3348 Sep 18 22:03	0°♄		
	3343 Aug 21 05:23	0°♄		asc. node	3348 Oct 15 00:34	13°♄26'10		
				retrograde	3348 Nov 27 05:06	24°♄17'28		
conjunction	3343 Aug 24 10:12	2°♄03'18	1°08'25	min. Earth dist.	3348 Dec 29 04:12	17°♄20'26	0.55580 AU	
minimum elong	3343 Aug 24 10:14	2°♄03'21	1°08'25	greatest brilliancy	3349 Jan 03 18:28	15°♄10'43	-1.8m	
max. Earth dist.	3343 Sep 01 14:39	7°♄17'53	2.66290 AU	opposition	3349 Jan 05 00:57	14°♄41'08	3°34'37	
	3343 Oct 07 06:13	0°♄		direct	3349 Feb 10 01:26	6°♄34'15		
morning rise	3343 Oct 09 01:08	1°♄08'05			3349 Apr 26 03:17	0°♄		
	3343 Nov 23 15:14	0°♄			3349 Jun 20 22:49	0°♄		
	3344 Jan 10 03:13	0°♄			3349 Aug 10 13:56	0°♄		
	3344 Feb 27 02:22	0°♄			3349 Sep 27 08:00	0°♄		
desc. node	3344 Mar 08 02:42	6°♄10'29		evening set	3349 Oct 27 20:12	20°♄03'54		
	3344 Apr 16 20:18	0°♄		desc. node	3349 Oct 28 22:58	20°♄48'47		
	3344 Jun 14 01:00	0°♄			3349 Nov 11 12:50	0°♄		
retrograde	3344 Jul 27 22:51	10°♄16'57		max. Earth dist.	3349 Nov 13 14:54	1°♄25'30	2.54091 AU	
opposition	3344 Aug 27 01:22	5°♄18'25	-6°-45'-7					
greatest brilliancy	3344 Aug 28 01:57	5°♄01'49	-2.8m	conjunction	3349 Dec 15 14:27	23°♄44'08	0°-27'-4	
min. Earth dist.	3344 Aug 30 03:41	4°♄28'18	0.37832 AU	minimum elong	3349 Dec 15 13:20	23°♄42'10	0°27'04	
direct	3344 Sep 26 20:34	0°♄00'48			3349 Dec 24 08:44	0°♄		
	3344 Dec 14 03:53	0°♄			3350 Feb 03 03:58	0°♄		
asc. node	3345 Jan 10 00:50	16°♄52'11		morning rise	3350 Feb 06 13:02	2°♄32'22		
	3345 Jan 30 01:06	0°♄			3350 Mar 14 11:54	0°♄		
	3345 Mar 15 23:56	0°♄			3350 Apr 22 01:26	0°♄		
	3345 Apr 30 08:09	0°♄			3350 May 30 16:49	0°♄		
	3345 Jun 15 15:42	0°♄			3350 Jul 09 09:56	0°♄		
	3345 Aug 01 18:22	0°♄			3350 Aug 20 10:46	0°♄		
evening set	3345 Aug 14 15:34	8°♄09'37		asc. node	3350 Sep 01 22:46	8°♄26'31		
	3345 Sep 18 02:12	0°♄			3350 Oct 06 02:31	0°♄		
max. Earth dist.	3345 Sep 23 11:42	3°♄25'59	2.67546 AU		3350 Dec 09 02:39	0°♄		
				retrograde	3351 Jan 03 23:46	3°♄56'44		
conjunction	3345 Sep 29 08:03	7°♄09'27	0°54'56		3351 Jan 28 01:33	30°♄♂		
minimum elong	3345 Sep 29 09:05	7°♄11'06	0°54'56	min. Earth dist.	3351 Feb 10 00:00	25°♄15'06	0.64904 AU	
	3345 Nov 03 22:45	0°♄		greatest brilliancy	3351 Feb 12 10:39	24°♄16'25	-1.3m	
morning rise	3345 Nov 12 11:43	5°♄31'43		opposition	3351 Feb 13 03:42	23°♄59'20	4°36'42	
	3345 Dec 19 20:15	0°♄		direct	3351 Mar 24 08:23	14°♄42'47		
desc. node	3346 Jan 24 01:44	23°♄32'55			3351 May 22 01:10	0°♄		
	3346 Feb 02 14:27	0°♄			3351 Jul 19 19:52	0°♄		
	3346 Mar 18 06:34	0°♄			3351 Sep 07 20:26	0°♄		
	3346 Apr 30 03:28	0°♄		desc. node	3351 Sep 15 21:42	5°♄06'25		
	3346 Jun 11 23:47	0°♄			3351 Oct 23 15:54	0°♄		
	3346 Jul 27 08:49	0°♄			3351 Dec 05 09:09	0°♄		
retrograde	3346 Oct 10 00:56	28°♄52'15		evening set	3351 Dec 12 19:06	5°♄23'54		
min. Earth dist.	3346 Nov 05 21:25	24°♄02'24	0.42393 AU	max. Earth dist.	3351 Dec 31 03:46	18°♄59'17	2.41288 AU	
opposition	3346 Nov 13 17:00	21°♄29'25	0°-54'-8		3352 Jan 14 17:59	0°♄		
greatest brilliancy	3346 Nov 13 07:43	21°♄37'00	-2.6m					
asc. node	3346 Nov 28 01:17	17°♄23'33		conjunction	3352 Feb 08 14:22	19°♄06'35	-1°-3'-59	
direct	3346 Dec 15 01:09	15°♄26'30		minimum elong	3352 Feb 08 13:32	19°♄04'58	1°04'00	

	3352 Feb 22 13:25	0° Υ		desc. node	3357 May 07 18:29	18° \mathcal{Z} 48'18	
	3352 Mar 31 15:53	0° Υ		opposition	3357 Jun 01 05:33	12° \mathcal{Z} 00'18	-1°-5'-6
morning rise	3352 Apr 16 10:46	12° Υ 25'47		greatest brilliancy	3357 Jun 01 16:51	11° \mathcal{Z} 50'01	-1.8m
	3352 May 08 22:36	0° \mathcal{B}		min. Earth dist.	3357 Jun 09 00:45	9° \mathcal{Z} 09'59	0.54339 AU
	3352 Jun 17 06:37	0° Π		direct	3357 Jul 10 22:25	2° \mathcal{Z} 41'49	
asc. node	3352 Jul 19 22:29	23° Π 54'33			3357 Sep 24 07:10	0° \mathcal{Z}	
	3352 Jul 28 11:59	0° \mathcal{E}			3357 Nov 08 17:56	0° \approx	
	3352 Sep 10 12:19	0° \mathcal{Q}			3357 Dec 19 08:27	0° Υ	
	3352 Oct 28 23:32	0° \mathcal{M}			3358 Jan 27 13:02	0° Υ	
	3352 Dec 29 10:36	0° \mathcal{E}			3358 Mar 07 22:18	0° \mathcal{B}	
retrograde	3353 Feb 06 08:36	7° \mathcal{E} 50'24		asc. node	3358 Mar 11 19:28	2° \mathcal{B} 55'04	
	3353 Mar 13 23:04	30° \mathcal{R} \mathcal{M}			3358 Apr 17 12:27	0° Π	
opposition	3353 Mar 18 11:21	28° \mathcal{M} 13'13	3°59'45		3358 May 29 21:02	0° \mathcal{E}	
greatest brilliancy	3353 Mar 18 13:57	28° \mathcal{M} 10'38	-1.2m	evening set	3358 Jun 18 17:09	13° \mathcal{E} 35'59	
min. Earth dist.	3353 Mar 19 04:50	27° \mathcal{M} 55'50	0.67865 AU		3358 Jul 13 03:25	0° \mathcal{Q}	
direct	3353 Apr 28 12:31	18° \mathcal{M} 20'06					
	3353 Jun 17 05:58	0° \mathcal{E}		conjunction	3358 Aug 08 23:16	17° \mathcal{Q} 38'23	1°06'27
desc. node	3353 Aug 02 21:20	22° \mathcal{E} 50'00		minimum elong	3358 Aug 08 22:38	17° \mathcal{Q} 37'20	1°06'26
	3353 Aug 15 11:21	0° \mathcal{M}		max. Earth dist.	3358 Aug 23 05:37	26° \mathcal{Q} 53'20	2.64308 AU
	3353 Oct 02 11:10	0° \mathcal{Z}			3358 Aug 28 01:23	0° \mathcal{M}	
	3353 Nov 14 17:53	0° \mathcal{Z}		morning rise	3358 Sep 25 01:50	17° \mathcal{M} 55'32	
	3353 Dec 25 02:29	0° \approx			3358 Oct 14 03:05	0° \mathcal{E}	
	3354 Feb 01 17:38	0° Υ			3358 Nov 30 22:38	0° \mathcal{M}	
evening set	3354 Feb 12 03:51	8° Υ 13'14			3359 Jan 18 14:27	0° \mathcal{Z}	
	3354 Mar 11 16:32	0° Υ			3359 Mar 10 07:13	0° \mathcal{Z}	
	3354 Apr 18 22:21	0° \mathcal{B}		desc. node	3359 Mar 25 17:33	8° \mathcal{Z} 37'06	
					3359 May 07 22:41	0° \approx	
conjunction	3354 Apr 21 19:28	2° \mathcal{B} 13'50	0°-30'-5	retrograde	3359 Jun 27 07:11	12° \approx 26'13	
minimum elong	3354 Apr 21 22:08	2° \mathcal{B} 19'00	0°30'03	opposition	3359 Jul 28 21:23	6° \approx 49'49	-5°-49'-52
	3354 May 28 07:42	0° Π		greatest brilliancy	3359 Jul 30 18:21	6° \approx 16'17	-2.6m
asc. node	3354 Jun 06 21:07	7° Π 05'34		min. Earth dist.	3359 Aug 04 22:33	4° \approx 44'31	0.41277 AU
max. Earth dist.	3354 Jun 12 16:58	11° Π 22'42	2.42429 AU	direct	3359 Aug 31 15:59	0° \approx 15'11	
morning rise	3354 Jun 27 20:39	22° Π 22'45			3359 Nov 16 05:33	0° Υ	
	3354 Jul 08 12:45	0° \mathcal{E}			3359 Dec 31 03:35	0° Υ	
	3354 Aug 21 00:53	0° \mathcal{Q}		asc. node	3360 Jan 27 18:29	19° Υ 26'30	
	3354 Oct 06 06:18	0° \mathcal{M}			3360 Feb 11 16:48	0° \mathcal{B}	
	3354 Nov 25 07:16	0° \mathcal{E}			3360 Mar 25 12:45	0° Π	
	3355 Jan 24 11:34	0° \mathcal{M}			3360 May 08 14:08	0° \mathcal{E}	
retrograde	3355 Mar 14 09:25	11° \mathcal{M} 21'06			3360 Jun 23 01:56	0° \mathcal{Q}	
opposition	3355 Apr 22 06:51	2° \mathcal{M} 27'14	2°10'36	evening set	3360 Jul 30 16:52	24° \mathcal{Q} 14'37	
greatest brilliancy	3355 Apr 22 19:03	2° \mathcal{M} 15'25	-1.4m		3360 Aug 08 17:02	0° \mathcal{M}	
min. Earth dist.	3355 Apr 26 20:00	0° \mathcal{M} 41'25	0.64216 AU				
	3355 Apr 28 15:14	30° \mathcal{R} \mathcal{E}		conjunction	3360 Sep 15 06:21	23° \mathcal{M} 54'16	1°02'59
direct	3355 Jun 02 17:56	22° \mathcal{E} 25'42		minimum elong	3360 Sep 15 07:09	23° \mathcal{M} 55'32	1°02'59
desc. node	3355 Jun 20 20:10	24° \mathcal{E} 21'17		max. Earth dist.	3360 Sep 14 16:23	23° \mathcal{M} 32'04	2.67696 AU
	3355 Jul 10 13:08	0° \mathcal{M}			3360 Sep 24 20:26	0° \mathcal{E}	
	3355 Sep 08 08:50	0° \mathcal{Z}		morning rise	3360 Oct 29 15:13	22° \mathcal{E} 10'58	
	3355 Oct 24 03:26	0° \mathcal{Z}			3360 Nov 10 19:53	0° \mathcal{M}	
	3355 Dec 04 07:02	0° \approx			3360 Dec 27 04:51	0° \mathcal{Z}	
	3356 Jan 12 05:28	0° Υ		desc. node	3361 Feb 09 16:51	29° \mathcal{Z} 14'05	
	3356 Feb 19 09:27	0° Υ			3361 Feb 10 20:37	0° \mathcal{Z}	
	3356 Mar 28 21:49	0° \mathcal{B}			3361 Mar 27 23:18	0° \approx	
evening set	3356 Apr 23 17:30	19° \mathcal{B} 37'37			3361 May 12 02:35	0° Υ	
asc. node	3356 Apr 23 19:39	19° \mathcal{B} 41'39			3361 Jun 28 06:57	0° Υ	
	3356 May 07 15:43	0° Π			3361 Sep 11 10:19	0° \mathcal{B}	
	3356 Jun 18 05:28	0° \mathcal{E}		retrograde	3361 Sep 14 18:09	0° \mathcal{B} 04'43	
					3361 Sep 18 01:43	30° \mathcal{R} Υ	
conjunction	3356 Jun 23 13:27	3° \mathcal{E} 44'38	0°36'50	min. Earth dist.	3361 Oct 11 12:31	25° Υ 37'45	0.38454 AU
minimum elong	3356 Jun 23 11:34	3° \mathcal{E} 41'21	0°36'49	opposition	3361 Oct 16 15:35	24° Υ 09'35	-3°-53'-21
max. Earth dist.	3356 Jul 26 06:41	26° \mathcal{E} 13'22	2.55539 AU	greatest brilliancy	3361 Oct 15 20:12	24° Υ 23'32	-2.8m
	3356 Jul 31 21:26	0° \mathcal{Q}		direct	3361 Nov 15 11:20	18° Υ 58'57	
morning rise	3356 Aug 16 16:34	10° \mathcal{Q} 30'44		asc. node	3361 Dec 14 16:53	24° Υ 06'59	
	3356 Sep 15 14:57	0° \mathcal{M}			3361 Dec 30 04:51	0° \mathcal{B}	
	3356 Nov 02 08:12	0° \mathcal{E}			3362 Feb 24 22:45	0° Π	
	3356 Dec 22 14:24	0° \mathcal{M}			3362 Apr 15 08:31	0° \mathcal{E}	
	3357 Feb 17 00:40	0° \mathcal{Z}			3362 Jun 02 16:37	0° \mathcal{Q}	
retrograde	3357 Apr 26 02:01	19° \mathcal{Z} 39'44			3362 Jul 20 21:10	0° \mathcal{M}	

evening set	3362 Sep 06 05:31	29° \mathbb{M} 42'33			3367 Apr 09 06:55	0° Υ	
	3362 Sep 06 16:33	0° $\underline{\mathbf{A}}$		greatest brilliancy	3367 Apr 25 12:50	12° Υ 45'29	1.2m
max. Earth dist.	3362 Oct 07 22:09	19° $\underline{\mathbf{A}}$ 54'26	2.65631 AU		3367 May 17 15:42	0° \mathbf{B}	
					3367 Jun 26 01:13	0° \mathbb{H}	
conjunction	3362 Oct 21 11:23	28° $\underline{\mathbf{A}}$ 39'21	0°35'53	asc. node	3367 Aug 06 13:36	0° \mathfrak{S} 05'52	
minimum elong	3362 Oct 21 12:23	28° $\underline{\mathbf{A}}$ 40'57	0°35'53		3367 Aug 06 10:16	0° \mathfrak{S}	
	3362 Oct 23 13:08	0° \mathbb{M}			3367 Sep 19 23:49	0° \mathcal{Q}	
morning rise	3362 Dec 05 06:38	28° \mathbb{M} 10'33			3367 Nov 09 16:57	0° \mathbb{M}	
	3362 Dec 07 23:51	0° \mathbf{X}		retrograde	3368 Jan 25 02:13	25° \mathbb{M} 09'38	
desc. node	3362 Dec 28 15:25	13° \mathbf{X} 59'23		opposition	3368 Mar 05 08:30	15° \mathbb{M} 21'38	4°22'53
	3363 Jan 20 20:14	0° \mathfrak{C}		greatest brilliancy	3368 Mar 05 03:51	15° \mathbb{M} 26'16	-1.2m
	3363 Mar 04 03:59	0° \approx		min. Earth dist.	3368 Mar 04 13:33	15° \mathbb{M} 40'33	0.67500 AU
	3363 Apr 14 05:48	0° \mathbf{X}		direct	3368 Apr 14 19:49	5° \mathbb{M} 39'48	
	3363 May 24 15:00	0° Υ			3368 Jul 01 17:18	0° $\underline{\mathbf{A}}$	
	3363 Jul 04 09:07	0° \mathbf{B}		desc. node	3368 Aug 19 12:14	27° $\underline{\mathbf{A}}$ 01'06	
	3363 Aug 16 20:27	0° \mathbb{H}			3368 Aug 24 10:59	0° \mathbb{M}	
	3363 Oct 12 17:14	0° \mathfrak{S}			3368 Oct 10 07:45	0° \mathbf{X}	
asc. node	3363 Nov 01 16:45	4° \mathfrak{S} 58'04			3368 Nov 22 07:17	0° \mathfrak{C}	
retrograde	3363 Nov 11 02:14	5° \mathfrak{S} 35'29			3369 Jan 01 15:07	0° \approx	
	3363 Dec 09 09:02	30° \mathbb{R} \mathbb{H}		evening set	3369 Jan 16 09:11	11° \approx 20'06	
min. Earth dist.	3363 Dec 10 19:12	29° \mathbb{H} 29'27	0.50531 AU		3369 Feb 09 07:08	0° \mathbf{X}	
opposition	3363 Dec 18 18:28	26° \mathbb{H} 32'10	2°24'31		3369 Mar 19 06:30	0° Υ	
greatest brilliancy	3363 Dec 17 16:35	26° \mathbb{H} 56'17	-2.1m				
direct	3364 Jan 22 03:22	19° \mathbb{H} 06'29		conjunction	3369 Mar 23 05:56	3° Υ 08'34	0°-53'-59
	3364 Mar 08 13:38	0° \mathfrak{S}		minimum elong	3369 Mar 23 09:03	3° Υ 14'42	0°53'58
	3364 May 08 07:51	0° \mathcal{Q}			3369 Apr 26 11:33	0° \mathbf{B}	
	3364 Jun 29 11:49	0° \mathbb{M}		max. Earth dist.	3369 Apr 28 09:03	1° \mathbf{B} 28'19	2.37562 AU
	3364 Aug 17 22:44	0° $\underline{\mathbf{A}}$		morning rise	3369 Jun 02 06:27	28° \mathbf{B} 06'53	
	3364 Oct 04 07:07	0° \mathbb{M}			3369 Jun 04 18:52	0° \mathbb{H}	
evening set	3364 Oct 12 09:39	5° \mathbb{M} 16'32		asc. node	3369 Jun 23 13:23	13° \mathbb{H} 53'03	
max. Earth dist.	3364 Nov 01 17:10	18° \mathbb{M} 41'58	2.58268 AU		3369 Jul 15 22:04	0° \mathfrak{S}	
desc. node	3364 Nov 14 14:23	27° \mathbb{M} 22'09			3369 Aug 28 11:28	0° \mathcal{Q}	
	3364 Nov 18 11:20	0° \mathbf{X}			3369 Oct 14 04:53	0° \mathbb{M}	
					3369 Dec 05 07:36	0° $\underline{\mathbf{A}}$	
conjunction	3364 Nov 28 09:24	6° \mathbf{X} 47'23	0°-7'-55	retrograde	3370 Feb 27 21:42	28° $\underline{\mathbf{A}}$ 17'33	
minimum elong	3364 Nov 28 09:04	6° \mathbf{X} 46'50	0°07'56	opposition	3370 Apr 08 09:55	19° $\underline{\mathbf{A}}$ 03'59	3°01'28
behind sun begin	3364 Nov 27 15:12	6° \mathbf{X} 16'07		greatest brilliancy	3370 Apr 08 20:31	18° $\underline{\mathbf{A}}$ 53'35	-1.3m
behind sun end	3364 Nov 29 02:56	7° \mathbf{X} 17'34		min. Earth dist.	3370 Apr 11 11:40	17° $\underline{\mathbf{A}}$ 51'35	0.66425 AU
	3364 Dec 31 11:42	0° \mathfrak{C}		direct	3370 May 19 21:32	9° $\underline{\mathbf{A}}$ 01'48	
morning rise	3365 Jan 16 17:26	11° \mathfrak{C} 42'07		desc. node	3370 Jul 07 10:45	20° $\underline{\mathbf{A}}$ 31'18	
	3365 Feb 10 14:17	0° \approx			3370 Jul 28 02:44	0° \mathbb{M}	
	3365 Mar 22 06:18	0° \mathbf{X}			3370 Sep 18 06:44	0° \mathbf{X}	
	3365 Apr 30 03:27	0° Υ			3370 Nov 01 16:29	0° \mathfrak{C}	
	3365 Jun 08 01:51	0° \mathbf{B}			3370 Dec 12 09:49	0° \approx	
	3365 Jul 18 03:54	0° \mathbb{H}			3371 Jan 20 03:54	0° \mathbf{X}	
	3365 Aug 30 01:04	0° \mathfrak{S}			3371 Feb 27 04:44	0° Υ	
asc. node	3365 Sep 18 16:01	12° \mathfrak{S} 37'14		evening set	3371 Mar 28 18:19	23° Υ 10'59	
	3365 Oct 18 21:25	0° \mathcal{Q}			3371 Apr 06 13:20	0° \mathbf{B}	
retrograde	3365 Dec 21 01:06	19° \mathcal{Q} 46'30		asc. node	3371 May 11 13:26	26° \mathbf{B} 36'58	
min. Earth dist.	3366 Jan 25 05:22	11° \mathcal{Q} 41'23	0.61965 AU		3371 May 16 02:27	0° \mathbb{H}	
opposition	3366 Jan 29 21:12	9° \mathcal{Q} 50'01	4°27'56				
greatest brilliancy	3366 Jan 28 20:45	10° \mathcal{Q} 14'25	-1.5m	conjunction	3371 Jun 02 05:10	12° \mathbb{H} 35'23	0°14'08
direct	3366 Mar 08 23:48	0° \mathcal{Q} 55'54		minimum elong	3371 Jun 02 04:07	12° \mathbb{H} 33'29	0°14'07
	3366 Jun 04 09:20	0° \mathbb{M}		behind sun begin	3371 Jun 01 15:59	12° \mathbb{H} 11'22	
	3366 Jul 28 11:42	0° $\underline{\mathbf{A}}$		behind sun end	3371 Jun 02 16:15	12° \mathbb{H} 55'34	
	3366 Sep 15 08:42	0° \mathbb{M}			3371 Jun 26 11:14	0° \mathfrak{S}	
desc. node	3366 Oct 02 13:30	11° \mathbb{M} 06'30		max. Earth dist.	3371 Jul 13 13:45	11° \mathfrak{S} 58'38	2.50740 AU
	3366 Oct 30 20:33	0° \mathbf{X}		morning rise	3371 Jul 30 20:30	23° \mathfrak{S} 49'53	
evening set	3366 Nov 23 10:32	16° \mathbf{X} 20'30			3371 Aug 08 23:38	0° \mathcal{Q}	
max. Earth dist.	3366 Dec 07 15:10	26° \mathbf{X} 26'18	2.46442 AU		3371 Sep 23 18:34	0° \mathbb{M}	
	3366 Dec 12 13:50	0° \mathfrak{C}			3371 Nov 11 01:17	0° $\underline{\mathbf{A}}$	
					3372 Jan 02 07:53	0° \mathbb{M}	
conjunction	3367 Jan 15 19:32	25° \mathfrak{C} 16'10	0°-54'-8		3372 Mar 11 09:45	0° \mathbf{X}	
minimum elong	3367 Jan 15 17:41	25° \mathfrak{C} 12'41	0°54'08	retrograde	3372 Apr 07 16:07	3° \mathbf{X} 57'47	
	3367 Jan 22 01:54	0° \approx			3372 May 02 20:26	30° \mathbb{R} \mathbb{M}	
	3367 Mar 02 01:12	0° \mathbf{X}		opposition	3372 May 15 02:38	25° \mathbb{M} 44'14	0°23'03
morning rise	3367 Mar 18 09:35	12° \mathbf{X} 47'42		greatest brilliancy	3372 May 15 06:24	25° \mathbb{M} 40'42	-1.6m

min. Earth dist.	3372 May 21 19:02	23° \mathbb{M} 13'20	0.58859 AU	conjunction	3377 Oct 07 08:05	15° \mathbb{A} 11'43	0°48'45
desc. node	3372 May 24 09:30	22° \mathbb{M} 16'10		minimum elong	3377 Oct 07 09:10	15° \mathbb{A} 13'26	0°48'45
direct	3372 Jun 24 20:09	15° \mathbb{M} 59'21			3377 Oct 30 08:11	0° \mathbb{M}	
	3372 Aug 15 20:02	0° \mathbb{A}		morning rise	3377 Nov 20 13:53	13° \mathbb{M} 49'41	
	3372 Oct 07 00:36	0° \mathbb{Z}			3377 Dec 15 01:41	0° \mathbb{A}	
	3372 Nov 18 20:36	0° \approx		desc. node	3378 Jan 14 07:18	20° \mathbb{A} 19'48	
	3372 Dec 28 12:14	0° \mathbb{H}			3378 Jan 28 11:13	0° \mathbb{Z}	
	3373 Feb 05 03:22	0° \mathbb{Y}			3378 Mar 12 14:01	0° \approx	
	3373 Mar 16 01:44	0° \mathbb{B}			3378 Apr 23 15:48	0° \mathbb{H}	
asc. node	3373 Mar 28 11:36	9° \mathbb{B} 23'46			3378 Jun 04 07:39	0° \mathbb{Y}	
	3373 Apr 25 05:38	0° \mathbb{I}			3378 Jul 17 03:27	0° \mathbb{B}	
evening set	3373 May 29 22:11	24° \mathbb{I} 53'46			3378 Sep 04 22:16	0° \mathbb{I}	
	3373 Jun 06 04:57	0° \mathbb{S}		retrograde	3378 Oct 22 14:00	13° \mathbb{I} 38'24	
	3373 Jul 20 03:54	0° \mathbb{Q}		asc. node	3378 Nov 18 08:18	8° \mathbb{I} 41'30	
				min. Earth dist.	3378 Nov 19 05:11	8° \mathbb{I} 24'08	0.45218 AU
conjunction	3373 Jul 23 06:41	2° \mathbb{Q} 04'41	0°59'31	opposition	3378 Nov 27 12:52	5° \mathbb{I} 32'01	0°32'33
minimum elong	3373 Jul 23 05:20	2° \mathbb{Q} 02'27	0°59'30	greatest brilliancy	3378 Nov 27 05:50	5° \mathbb{I} 38'06	-2.4m
max. Earth dist.	3373 Aug 13 02:40	15° \mathbb{Q} 49'54	2.61491 AU		3378 Dec 17 13:27	30° \mathbb{R} \mathbb{B}	
	3373 Sep 03 22:16	0° \mathbb{M}		direct	3378 Dec 29 23:59	28° \mathbb{B} 57'22	
morning rise	3373 Sep 10 12:14	4° \mathbb{M} 14'04			3379 Jan 11 21:44	0° \mathbb{I}	
	3373 Oct 21 03:00	0° \mathbb{A}			3379 Mar 27 10:21	0° \mathbb{S}	
	3373 Dec 08 14:09	0° \mathbb{M}			3379 May 19 07:53	0° \mathbb{Q}	
	3374 Jan 28 00:29	0° \mathbb{A}			3379 Jul 08 10:03	0° \mathbb{M}	
	3374 Mar 25 05:52	0° \mathbb{Z}			3379 Aug 26 01:37	0° \mathbb{A}	
desc. node	3374 Apr 11 08:08	7° \mathbb{Z} 33'34		evening set	3379 Sep 28 16:24	21° \mathbb{A} 17'59	
retrograde	3374 May 30 19:09	19° \mathbb{Z} 18'57			3379 Oct 12 03:50	0° \mathbb{M}	
opposition	3374 Jul 03 08:56	12° \mathbb{Z} 49'16	-3°-57'-27	max. Earth dist.	3379 Oct 23 05:01	7° \mathbb{M} 12'28	2.61779 AU
greatest brilliancy	3374 Jul 05 00:26	12° \mathbb{Z} 16'27	-2.3m				
min. Earth dist.	3374 Jul 11 18:28	10° \mathbb{Z} 03'05	0.46250 AU	conjunction	3379 Nov 13 13:15	21° \mathbb{M} 20'45	0°10'33
direct	3374 Aug 09 01:38	4° \mathbb{Z} 52'37		minimum elong	3379 Nov 13 13:37	21° \mathbb{M} 21'22	0°10'33
	3374 Oct 17 10:37	0° \approx		behind sun begin	3379 Nov 12 22:41	20° \mathbb{M} 56'25	
	3374 Dec 01 15:39	0° \mathbb{H}		behind sun end	3379 Nov 14 04:33	21° \mathbb{M} 46'20	
	3375 Jan 11 20:31	0° \mathbb{Y}			3379 Nov 26 09:41	0° \mathbb{A}	
asc. node	3375 Feb 13 10:13	24° \mathbb{Y} 01'42		desc. node	3379 Dec 02 05:44	3° \mathbb{A} 58'03	
	3375 Feb 21 13:46	0° \mathbb{B}		morning rise	3379 Dec 30 10:28	23° \mathbb{A} 28'20	
	3375 Apr 04 04:52	0° \mathbb{I}			3380 Jan 08 16:39	0° \mathbb{Z}	
	3375 May 17 09:44	0° \mathbb{S}			3380 Feb 19 04:52	0° \approx	
	3375 Jul 01 07:12	0° \mathbb{Q}			3380 Mar 30 07:21	0° \mathbb{H}	
evening set	3375 Jul 15 23:33	9° \mathbb{Q} 35'51			3380 May 08 14:35	0° \mathbb{Y}	
	3375 Aug 16 13:48	0° \mathbb{M}			3380 Jun 16 23:23	0° \mathbb{B}	
					3380 Jul 27 16:57	0° \mathbb{I}	
conjunction	3375 Sep 01 21:41	10° \mathbb{M} 26'50	1°07'33		3380 Sep 10 06:39	0° \mathbb{S}	
minimum elong	3375 Sep 01 22:02	10° \mathbb{M} 27'24	1°07'33	asc. node	3380 Oct 05 07:34	14° \mathbb{S} 33'45	
max. Earth dist.	3375 Sep 06 21:16	13° \mathbb{M} 37'31	2.67023 AU		3380 Nov 09 19:56	0° \mathbb{Q}	
	3375 Oct 02 14:47	0° \mathbb{A}		retrograde	3380 Dec 06 06:32	4° \mathbb{Q} 21'53	
morning rise	3375 Oct 16 22:35	9° \mathbb{A} 06'06			3380 Dec 31 02:43	30° \mathbb{R} \mathbb{S}	
	3375 Nov 18 19:28	0° \mathbb{M}		min. Earth dist.	3381 Jan 08 10:14	26° \mathbb{S} 58'38	0.58092 AU
	3376 Jan 04 20:02	0° \mathbb{A}		greatest brilliancy	3381 Jan 13 07:07	25° \mathbb{S} 03'56	-1.7m
	3376 Feb 20 18:38	0° \mathbb{Z}		opposition	3381 Jan 14 12:50	24° \mathbb{S} 34'40	4°01'18
desc. node	3376 Feb 27 07:36	4° \mathbb{Z} 09'55		direct	3381 Feb 20 08:25	16° \mathbb{S} 08'49	
	3376 Apr 08 06:32	0° \approx			3381 Apr 15 23:53	0° \mathbb{Q}	
	3376 May 28 11:48	0° \mathbb{H}			3381 Jun 14 19:43	0° \mathbb{M}	
retrograde	3376 Aug 15 08:06	28° \mathbb{H} 16'32			3381 Aug 05 10:59	0° \mathbb{A}	
opposition	3376 Sep 14 11:28	23° \mathbb{H} 16'46	-6°-18'-55		3381 Sep 22 13:52	0° \mathbb{M}	
min. Earth dist.	3376 Sep 14 10:40	23° \mathbb{H} 17'18	0.37155 AU	desc. node	3381 Oct 19 04:05	17° \mathbb{M} 23'24	
greatest brilliancy	3376 Sep 14 15:41	23° \mathbb{H} 13'59	-2.9m	evening set	3381 Nov 06 02:24	29° \mathbb{M} 27'26	
direct	3376 Oct 14 02:48	18° \mathbb{H} 20'32			3381 Nov 06 21:30	0° \mathbb{A}	
	3376 Nov 28 08:57	0° \mathbb{Y}		max. Earth dist.	3381 Nov 21 11:04	10° \mathbb{A} 01'28	2.51507 AU
asc. node	3376 Dec 31 09:49	17° \mathbb{Y} 24'21			3381 Dec 19 16:50	0° \mathbb{Z}	
	3377 Jan 21 07:25	0° \mathbb{B}		conjunction	3381 Dec 26 04:45	4° \mathbb{Z} 41'39	0°-37'-48
	3377 Mar 09 08:37	0° \mathbb{I}		minimum elong	3381 Dec 26 03:12	4° \mathbb{Z} 38'52	0°37'48
	3377 Apr 24 17:13	0° \mathbb{S}			3382 Jan 29 09:57	0° \approx	
	3377 Jun 10 14:11	0° \mathbb{Q}		morning rise	3382 Feb 19 18:37	16° \mathbb{A} 14'07	
	3377 Jul 28 00:30	0° \mathbb{M}			3382 Mar 09 14:56	0° \mathbb{H}	
evening set	3377 Aug 22 22:20	16° \mathbb{M} 20'59			3382 Apr 17 01:33	0° \mathbb{Y}	
	3377 Sep 13 11:50	0° \mathbb{A}			3382 May 25 14:04	0° \mathbb{B}	
max. Earth dist.	3377 Sep 28 16:50	9° \mathbb{A} 40'37	2.67100 AU				

	3382 Jul 04 03:03	0°♊		direct	3387 Jun 10 22:04	0°♌58'45	
	3382 Aug 14 19:22	0°♋		desc. node	3387 Jun 11 00:16	0°♌58'45	
asc. node	3382 Aug 23 07:29	5°♋51'11			3387 Aug 31 23:40	0°♌	
	3382 Sep 29 08:55	0°♌			3387 Oct 18 06:03	0°♍	
	3382 Nov 24 02:00	0°♍			3387 Nov 28 21:23	0°♎	
retrograde	3383 Jan 11 18:46	12°♍08'30			3388 Jan 07 01:02	0°♏	
min. Earth dist.	3383 Feb 18 16:49	3°♍08'50	0.66097 AU		3388 Feb 14 08:13	0°♐	
greatest brilliancy	3383 Feb 20 11:45	2°♍25'50	-1.3m		3388 Mar 23 23:15	0°♑	
opposition	3383 Feb 21 00:24	2°♍13'08	4°35'17	asc. node	3388 Apr 14 04:40	16°♑07'50	
	3383 Feb 26 15:10	30°♌			3388 May 02 19:29	0°♊	
direct	3383 Apr 01 17:10	22°♌46'25		evening set	3388 May 07 14:35	3°♊31'39	
	3383 May 09 18:04	0°♍			3388 Jun 13 11:18	0°♋	
	3383 Jul 13 13:41	0°♌					
	3383 Sep 02 15:58	0°♍		conjunction	3388 Jul 04 22:12	14°♋54'06	0°46'53
desc. node	3383 Sep 06 03:09	2°♍09'47		minimum elong	3388 Jul 04 20:21	14°♋50'55	0°46'53
	3383 Oct 18 19:58	0°♌			3388 Jul 27 04:25	0°♌	
	3383 Nov 30 15:35	0°♍		max. Earth dist.	3388 Aug 02 05:04	4°♌01'48	2.57861 AU
evening set	3383 Dec 24 19:54	17°♍47'34		morning rise	3388 Aug 26 01:06	19°♌44'44	
	3384 Jan 10 00:18	0°♎			3388 Sep 10 20:54	0°♍	
max. Earth dist.	3384 Jan 20 03:46	7°♎45'44	2.38709 AU		3388 Oct 28 07:49	0°♌	
	3384 Feb 17 18:28	0°♏			3388 Dec 16 18:21	0°♍	
					3389 Feb 08 04:21	0°♌	
conjunction	3384 Feb 23 12:41	4°♏31'22	-1°-4'-35	desc. node	3389 Apr 27 23:51	29°♌23'44	
minimum elong	3384 Feb 23 13:15	4°♏32'29	1°04'36	retrograde	3389 May 07 17:17	29°♌57'00	
	3384 Mar 26 19:37	0°♐		opposition	3389 Jun 12 00:04	22°♌40'05	-2°-3'-47
morning rise	3384 May 03 21:39	29°♐52'49		greatest brilliancy	3389 Jun 12 22:02	22°♌20'34	-2.0m
	3384 May 04 01:21	0°♑		min. Earth dist.	3389 Jun 20 05:20	19°♌45'17	0.51521 AU
	3384 Jun 12 08:19	0°♊		direct	3389 Jul 20 19:45	13°♌44'21	
asc. node	3384 Jul 10 06:08	20°♊31'52			3389 Sep 13 12:19	0°♍	
	3384 Jul 23 11:38	0°♋			3389 Nov 01 11:20	0°♎	
	3384 Sep 05 05:42	0°♌			3389 Dec 13 01:54	0°♏	
	3384 Oct 22 19:52	0°♍			3390 Jan 21 18:32	0°♐	
	3384 Dec 18 00:10	0°♌		asc. node	3390 Mar 02 02:36	29°♐41'44	
retrograde	3385 Feb 14 02:39	15°♌33'50			3390 Mar 02 12:23	0°♑	
opposition	3385 Mar 26 01:02	6°♌04'12	3°41'13		3390 Apr 12 09:19	0°♊	
greatest brilliancy	3385 Mar 26 07:03	5°♌58'15	-1.2m		3390 May 24 23:28	0°♋	
min. Earth dist.	3385 Mar 27 14:33	5°♌27'02	0.67630 AU	evening set	3390 Jun 29 01:15	23°♋46'34	
	3385 Apr 11 14:11	30°♌			3390 Jul 08 09:53	0°♌	
direct	3385 May 06 07:05	26°♍06'42					
	3385 Jun 02 03:48	0°♌		conjunction	3390 Aug 17 22:00	26°♌27'32	1°08'08
desc. node	3385 Jul 24 02:06	21°♌26'46		minimum elong	3390 Aug 17 21:46	26°♌27'08	1°08'07
	3385 Aug 08 22:33	0°♍			3390 Aug 23 09:54	0°♍	
	3385 Sep 27 02:08	0°♌		max. Earth dist.	3390 Aug 28 18:01	3°♍25'57	2.65512 AU
	3385 Nov 09 17:34	0°♍		morning rise	3390 Oct 03 02:52	25°♍59'51	
	3385 Dec 20 05:19	0°♎			3390 Oct 09 10:21	0°♌	
	3386 Jan 27 21:19	0°♏			3390 Nov 25 23:28	0°♍	
evening set	3386 Feb 28 03:12	24°♏41'15			3391 Jan 12 22:25	0°♌	
	3386 Mar 06 20:25	0°♐			3391 Mar 02 21:25	0°♍	
	3386 Apr 14 02:31	0°♑		desc. node	3391 Mar 15 23:11	7°♍47'02	
					3391 Apr 24 05:12	0°♎	
conjunction	3386 May 07 15:14	18°♑03'22	0°-13'-43	retrograde	3391 Jul 14 18:11	27°♎57'33	
minimum elong	3386 May 07 16:28	18°♑05'42	0°13'42	opposition	3391 Aug 14 07:29	22°♎46'34	-6°-33'-32
behind sun begin	3386 May 07 01:37	17°♑37'32		greatest brilliancy	3391 Aug 15 21:00	22°♎20'15	-2.7m
behind sun end	3386 May 08 07:19	18°♑33'52		min. Earth dist.	3391 Aug 19 12:22	21°♎19'12	0.39071 AU
	3386 May 23 12:10	0°♊		direct	3391 Sep 15 09:08	16°♎58'17	
asc. node	3386 May 28 04:56	3°♊29'45			3391 Nov 01 09:21	0°♏	
max. Earth dist.	3386 Jun 25 23:55	24°♊29'30	2.45448 AU		3391 Dec 22 07:30	0°♐	
	3386 Jul 03 17:22	0°♋		asc. node	3392 Jan 18 01:02	17°♐53'57	
morning rise	3386 Jul 10 16:00	4°♋54'16			3392 Feb 04 17:50	0°♑	
	3386 Aug 16 04:13	0°♌			3392 Mar 19 13:42	0°♊	
	3386 Oct 01 03:46	0°♍			3392 May 03 05:51	0°♋	
	3386 Nov 19 08:15	0°♌			3392 Jun 18 03:11	0°♌	
	3387 Jan 14 06:55	0°♍			3392 Aug 04 00:02	0°♍	
retrograde	3387 Mar 23 05:13	19°♍37'38		evening set	3392 Aug 08 08:13	2°♍45'36	
opposition	3387 Apr 30 15:24	10°♍56'48	1°34'58	max. Earth dist.	3392 Sep 19 20:05	29°♍44'50	2.67723 AU
greatest brilliancy	3387 May 01 02:21	10°♍46'16	-1.5m		3392 Sep 20 05:37	0°♌	
min. Earth dist.	3387 May 05 23:22	8°♍53'45	0.62555 AU				

conjunction	3392 Sep 23 08:27	1°♄58'57	0°58'41	retrograde	3397 Dec 29 03:35	28°♂28'44	
minimum elong	3392 Sep 23 09:24	2°♄00'28	0°58'40	min. Earth dist.	3398 Feb 03 08:20	20°♂02'43	0.63710 AU
morning rise	3392 Nov 06 12:45	0°♄14'39		greatest brilliancy	3398 Feb 06 07:44	18°♂51'18	-1.4m
	3392 Nov 06 03:39	0°♄		opposition	3398 Feb 07 04:18	18°♂30'43	4°35'09
	3392 Dec 22 06:30	0°♄		direct	3398 Mar 17 21:27	9°♂23'36	
desc. node	3393 Jan 30 22:00	26°♄18'32			3398 May 27 06:53	0°♄	
	3393 Feb 05 10:04	0°♄			3398 Jul 22 19:36	0°♄	
	3393 Mar 21 16:31	0°♄			3398 Sep 10 09:01	0°♄	
	3393 May 04 09:40	0°♄		desc. node	3398 Sep 22 17:53	7°♄54'01	
	3393 Jun 17 15:11	0°♄			3398 Oct 26 02:37	0°♄	
	3393 Aug 05 16:44	0°♄		evening set	3398 Dec 04 03:31	27°♄18'23	
retrograde	3393 Sep 29 13:15	17°♄15'18			3398 Dec 07 21:10	0°♄	
min. Earth dist.	3393 Oct 26 01:58	12°♄40'40	0.40378 AU	max. Earth dist.	3398 Dec 19 16:59	8°♄36'43	2.43576 AU
greatest brilliancy	3393 Nov 01 07:19	10°♄45'27	-2.7m		3399 Jan 17 08:33	0°♄	
opposition	3393 Nov 02 00:44	10°♄31'58	-2°-9'-14				
direct	3393 Dec 02 13:31	4°♄54'25		conjunction	3399 Jan 28 19:34	8°♄44'18	-1°00'-54
asc. node	3393 Dec 05 01:29	4°♄56'56		minimum elong	3399 Jan 28 18:05	8°♄41'28	1°00'54
	3394 Feb 15 01:34	0°♄			3399 Feb 25 06:19	0°♄	
	3394 Apr 08 15:58	0°♄		morning rise	3399 Apr 03 23:35	29°♄38'59	
	3394 May 28 04:25	0°♄			3399 Apr 04 10:16	0°♄	
	3394 Jul 15 22:27	0°♄			3399 May 12 17:28	0°♄	
	3394 Sep 02 00:11	0°♄			3399 Jun 21 01:04	0°♄	
evening set	3394 Sep 14 09:23	7°♄49'48		asc. node	3399 Jul 27 22:34	26°♄56'25	
max. Earth dist.	3394 Oct 13 09:11	26°♄23'35	2.64484 AU		3399 Aug 01 06:12	0°♄	
	3394 Oct 18 22:46	0°♄			3399 Sep 14 09:23	0°♄	
					3399 Nov 02 12:02	0°♄	
conjunction	3394 Oct 29 17:19	7°♄01'19	0°27'11		3400 Jan 10 01:10	0°♄	
minimum elong	3394 Oct 29 18:08	7°♄02'40	0°27'11	retrograde	3400 Feb 01 17:29	2°♄55'45	
	3394 Dec 03 07:50	0°♄			3400 Feb 22 19:38	30°♄	
morning rise	3394 Dec 14 01:27	7°♄16'11		opposition	3400 Mar 13 21:47	23°♄13'16	4°10'36
desc. node	3394 Dec 18 20:39	10°♄32'36		greatest brilliancy	3400 Mar 13 21:17	23°♄13'47	-1.2m
	3395 Jan 15 23:14	0°♄		min. Earth dist.	3400 Mar 13 22:51	23°♄12'13	0.67822 AU
	3395 Feb 26 23:31	0°♄		direct	3400 Apr 23 16:56	13°♄24'44	
	3395 Apr 08 16:00	0°♄			3400 Jun 24 02:41	0°♄	
	3395 May 18 14:05	0°♄		desc. node	3400 Aug 10 17:15	24°♄46'12	
	3395 Jun 27 16:40	0°♄			3400 Aug 19 15:56	0°♄	
	3395 Aug 08 17:31	0°♄			3400 Oct 06 05:09	0°♄	
	3395 Sep 26 15:22	0°♄			3400 Nov 18 09:57	0°♄	
asc. node	3395 Oct 23 01:05	11°♄37'06			3400 Dec 28 19:18	0°♄	
retrograde	3395 Nov 21 02:42	16°♄59'56		evening set	3401 Feb 01 04:03	26°♄37'04	
min. Earth dist.	3395 Dec 22 01:45	10°♄24'37	0.53387 AU		3401 Feb 05 11:23	0°♄	
greatest brilliancy	3395 Dec 28 05:02	8°♄04'23	-1.9m		3401 Mar 15 10:29	0°♄	
opposition	3395 Dec 29 10:56	7°♄35'46	3°09'30				
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direct	3396 Feb 02 18:03	29°♄46'06		minimum elong	3401 Apr 10 04:03	20°♄16'02	0°41'34
	3396 Feb 08 18:41	0°♄			3401 Apr 22 15:33	0°♄	
	3396 Apr 30 20:32	0°♄		max. Earth dist.	3401 May 30 19:50	29°♄09'02	2.40054 AU
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	3396 Aug 13 00:04	0°♄		asc. node	3401 Jun 14 21:39	10°♄20'36	
	3396 Sep 29 14:47	0°♄		morning rise	3401 Jun 18 05:13	12°♄46'37	
evening set	3396 Oct 21 02:35	14°♄03'19			3401 Jul 12 01:50	0°♄	
desc. node	3396 Nov 04 19:12	23°♄52'02			3401 Aug 24 12:47	0°♄	
max. Earth dist.	3396 Nov 08 10:38	26°♄19'31	2.56052 AU		3401 Oct 09 20:44	0°♄	
	3396 Nov 13 20:37	0°♄			3401 Nov 29 12:47	0°♄	
					3402 Feb 02 11:57	0°♄	
conjunction	3396 Dec 07 23:24	16°♄39'17	0°-18'-58	retrograde	3402 Mar 09 02:28	6°♄10'29	
minimum elong	3396 Dec 07 22:38	16°♄37'57	0°18'58		3402 Apr 09 16:27	30°♄	
	3396 Dec 26 19:34	0°♄		opposition	3402 Apr 17 06:41	27°♄07'19	2°33'04
morning rise	3397 Jan 28 02:56	23°♄32'54		greatest brilliancy	3402 Apr 17 18:31	26°♄55'46	-1.3m
	3397 Feb 05 18:59	0°♄		min. Earth dist.	3402 Apr 21 03:51	25°♄36'20	0.65328 AU
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	3397 Jun 02 17:35	0°♄			3402 Jul 19 07:56	0°♄	
	3397 Jul 12 13:02	0°♄			3402 Sep 13 02:28	0°♄	
	3397 Aug 23 19:16	0°♄			3402 Oct 28 06:59	0°♄	
asc. node	3397 Sep 08 23:10	10°♄44'49			3402 Dec 08 06:51	0°♄	
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

































































































































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	3403 Apr 02 15:50	0°♄			3407 Nov 15 01:17	0°♌	
evening set	3403 Apr 14 08:17	8°♄58'15			3407 Dec 31 16:53	0°♏	
asc. node	3403 May 02 19:52	22°♄57'29			3408 Feb 15 21:16	0°♐	
	3403 May 12 06:30	0°♌		desc. node	3408 Feb 18 12:59	1°♐43'53	
					3408 Apr 01 21:40	0°♑	
conjunction	3403 Jun 16 06:48	25°♌27'12	0°27'57		3408 May 18 16:10	0°♒	
minimum elong	3403 Jun 16 05:06	25°♌24'10	0°27'56		3408 Jul 09 08:17	0°♓	
	3403 Jun 22 16:39	0°♑		retrograde	3408 Sep 03 02:01	16°♓44'47	
max. Earth dist.	3403 Jul 22 19:51	20°♑55'09	2.53489 AU	min. Earth dist.	3408 Sep 30 20:11	12°♓12'01	0.37467 AU
	3403 Aug 05 05:41	0°♒		opposition	3408 Oct 03 21:28	11°♓22'11	-5°-7'-56
morning rise	3403 Aug 11 06:28	4°♒02'35		greatest brilliancy	3408 Oct 03 09:02	11°♓30'39	-2.9m
	3403 Sep 19 22:15	0°♓		direct	3408 Nov 02 08:22	6°♓25'39	
	3403 Nov 06 19:24	0°♈		asc. node	3408 Dec 22 17:25	20°♓10'02	
	3403 Dec 27 17:48	0°♉			3409 Jan 11 02:21	0°♊	
	3404 Feb 25 07:36	0°♊			3409 Mar 02 23:02	0°♌	
retrograde	3404 Apr 18 20:47	13°♊10'07			3409 Apr 19 18:24	0°♍	
desc. node	3404 May 15 14:29	8°♊43'32			3409 Jun 06 08:57	0°♎	
opposition	3404 May 25 14:45	5°♊14'23	0°-25'-47		3409 Jul 24 04:33	0°♏	
greatest brilliancy	3404 May 25 19:00	5°♊10'26	-1.7m	evening set	3409 Sep 01 03:42	24°♏30'17	
min. Earth dist.	3404 Jun 01 22:13	2°♊31'53	0.56464 AU		3409 Sep 09 20:12	0°♐	
	3404 Jun 09 07:07	30°♋		max. Earth dist.	3409 Oct 05 00:02	16°♐01'01	2.66391 AU
direct	3404 Jul 04 19:40	25°♋42'03					
	3404 Jul 31 13:56	0°♊		conjunction	3409 Oct 16 10:04	23°♐20'55	0°41'34
	3404 Sep 30 14:00	0°♑		minimum elong	3409 Oct 16 11:07	23°♐22'37	0°41'33
	3404 Nov 13 17:26	0°♒			3409 Oct 26 17:10	0°♓	
	3404 Dec 23 21:09	0°♓		morning rise	3409 Nov 29 21:33	22°♓24'00	
	3405 Jan 31 18:47	0°♔			3409 Dec 11 07:30	0°♏	
asc. node	3405 Mar 11 22:02	0°♄		desc. node	3410 Jan 05 11:30	16°♏59'23	
	3405 Mar 19 19:20	5°♄57'17			3410 Jan 24 10:19	0°♐	
	3405 Apr 21 06:09	0°♌			3410 Mar 08 02:42	0°♑	
	3405 Jun 02 08:58	0°♍			3410 Apr 18 14:46	0°♒	
evening set	3405 Jun 11 11:20	6°♍18'05			3410 May 29 11:35	0°♓	
	3405 Jul 16 10:42	0°♎			3410 Jul 09 22:13	0°♔	
					3410 Aug 24 00:28	0°♌	
conjunction	3405 Aug 03 00:04	11°♎37'13	1°04'10	retrograde	3410 Nov 04 01:13	26°♌59'42	
minimum elong	3405 Aug 02 23:07	11°♎35'41	1°04'10	asc. node	3410 Nov 09 16:47	26°♌45'30	
max. Earth dist.	3405 Aug 20 01:34	22°♎45'57	2.63158 AU	min. Earth dist.	3410 Dec 02 18:11	21°♌16'57	0.48150 AU
	3405 Aug 31 05:54	0°♏		greatest brilliancy	3410 Dec 10 04:02	18°♌36'43	-2.2m
morning rise	3405 Sep 19 22:58	12°♏38'29		opposition	3410 Dec 11 00:08	18°♌18'30	1°42'45
	3405 Oct 17 08:03	0°♈		direct	3411 Jan 13 13:36	11°♌14'23	
	3405 Dec 04 09:25	0°♉			3411 Mar 18 12:07	0°♍	
	3406 Jan 22 16:50	0°♊			3411 May 13 23:12	0°♎	
	3406 Mar 16 04:17	0°♑			3411 Jul 04 03:29	0°♏	
desc. node	3406 Apr 02 13:35	9°♑02'03			3411 Aug 22 05:55	0°♐	
	3406 May 26 16:45	0°♒		evening set	3411 Oct 08 01:02	29°♐41'35	
retrograde	3406 Jun 15 16:26	2°♒17'37			3411 Oct 08 12:24	0°♑	
	3406 Jul 05 00:28	30°♒		max. Earth dist.	3411 Oct 30 05:31	14°♑13'26	2.59924 AU
opposition	3406 Jul 18 04:30	26°♒17'30	-5°-3'-38		3411 Nov 22 18:16	0°♊	
greatest brilliancy	3406 Jul 20 01:48	25°♒41'57	-2.4m				
min. Earth dist.	3406 Jul 26 03:04	23°♒49'04	0.43399 AU	conjunction	3411 Nov 23 11:08	0°♊28'36	0°00'00
direct	3406 Aug 22 08:43	19°♒04'23		minimum elong	3411 Nov 23 11:07	0°♊28'35	0°00'01
	3406 Oct 03 21:14	0°♋		behind sun begin	3411 Nov 22 20:40	0°♊04'05	
	3406 Nov 24 02:29	0°♌		behind sun end	3411 Nov 24 01:34	0°♊53'06	
	3407 Jan 05 22:49	0°♍		desc. node	3411 Nov 23 10:23	0°♊27'21	
asc. node	3407 Feb 04 18:42	21°♍32'03			3412 Jan 04 22:32	0°♑	
	3407 Feb 16 12:26	0°♄		morning rise	3412 Jan 10 13:51	4°♑01'18	
	3407 Mar 30 17:05	0°♌			3412 Feb 15 06:07	0°♍	
	3407 May 13 07:16	0°♍			3412 Mar 26 03:18	0°♒	
	3407 Jun 27 11:17	0°♎			3412 May 04 04:49	0°♓	
evening set	3407 Jul 26 02:35	18°♎34'35			3412 Jun 12 07:06	0°♔	
	3407 Aug 12 21:38	0°♏			3412 Jul 22 13:56	0°♌	
					3412 Sep 03 22:39	0°♍	
conjunction	3407 Sep 11 05:03	18°♏41'46	1°05'19	asc. node	3412 Sep 26 16:22	14°♏10'28	
minimum elong	3407 Sep 11 05:41	18°♏42'47	1°05'19		3412 Oct 26 04:42	0°♎	
max. Earth dist.	3407 Sep 13 03:33	19°♏55'44	2.67500 AU	retrograde	3412 Dec 15 20:28	13°♎48'16	
	3407 Sep 28 23:31	0°♈		min. Earth dist.	3413 Jan 19 03:31	6°♎01'07	0.60340 AU

greatest brilliancy	3413 Jan 23 07:50	4°♏21'41	-1.6m	asc. node	3418 May 19 13:43	29°♏53'04	
opposition	3413 Jan 24 11:09	3°♏54'33	4°19'33		3418 May 19 17:26	0°♐	
	3413 Feb 03 21:47	30°♑♌					
direct	3413 Mar 02 23:56	25°♌12'23		conjunction	3418 May 23 11:45	2°♐47'56	0°02'39
	3413 Apr 01 23:09	0°♏		minimum elong	3418 May 23 11:31	2°♐47'29	0°02'39
	3413 Jun 09 04:36	0°♑		behind sun begin	3418 May 22 08:44	1°♐57'46	
	3413 Aug 01 04:08	0°♎		behind sun end	3418 May 24 14:19	3°♐37'09	
	3413 Sep 18 18:16	0°♍			3418 Jun 29 23:06	0°♌	
desc. node	3413 Oct 10 09:41	14°♍02'33		max. Earth dist.	3418 Jul 07 18:11	5°♌30'12	2.48414 AU
	3413 Nov 03 05:34	0°♐		morning rise	3418 Jul 23 11:18	16°♌26'16	
evening set	3413 Nov 16 18:07	9°♐17'29			3418 Aug 12 09:15	0°♏	
max. Earth dist.	3413 Dec 01 04:29	19°♐23'51	2.48744 AU		3418 Sep 27 04:14	0°♑	
	3413 Dec 16 00:56	0°♑			3418 Nov 14 17:35	0°♎	
					3419 Jan 07 03:55	0°♍	
conjunction	3414 Jan 07 12:59	16°♑26'34	0°-47'-41	retrograde	3419 Apr 02 09:54	28°♍08'22	
minimum elong	3414 Jan 07 11:10	16°♑23'12	0°47'42	opposition	3419 May 10 07:21	19°♍41'51	0°54'57
	3414 Jan 25 16:03	0°♒		greatest brilliancy	3419 May 10 15:03	19°♍34'31	-1.5m
	3414 Mar 05 18:21	0°♑		min. Earth dist.	3419 May 16 09:08	17°♍23'03	0.60628 AU
morning rise	3414 Mar 07 07:19	1°♑11'54		desc. node	3419 Jun 02 05:34	12°♍00'08	
	3414 Apr 13 02:08	0°♑		direct	3419 Jun 20 07:30	9°♍49'40	
	3414 May 21 12:01	0°♑			3419 Aug 24 08:15	0°♐	
	3414 Jun 29 22:02	0°♐			3419 Oct 13 00:12	0°♑	
	3414 Aug 10 08:10	0°♌			3419 Nov 24 07:10	0°♒	
asc. node	3414 Aug 14 14:04	2°♌57'47			3420 Jan 02 17:35	0°♑	
	3414 Sep 24 04:12	0°♏			3420 Feb 10 04:43	0°♑	
	3414 Nov 15 06:12	0°♑			3420 Mar 19 22:56	0°♑	
retrograde	3415 Jan 20 11:03	20°♑07'39		asc. node	3420 Apr 05 12:02	12°♑33'33	
min. Earth dist.	3415 Feb 28 05:46	10°♑51'18	0.67004 AU		3420 Apr 28 22:19	0°♐	
opposition	3415 Mar 01 17:14	10°♑15'46	4°29'29	evening set	3420 May 21 14:30	16°♐27'39	
greatest brilliancy	3415 Mar 01 09:03	10°♑23'57	-1.3m		3420 Jun 09 16:49	0°♌	
direct	3415 Apr 10 20:34	0°♑40'17					
	3415 Jul 07 17:50	0°♎		conjunction	3420 Jul 16 14:53	25°♌22'50	0°54'55
desc. node	3415 Aug 28 08:36	29°♎25'00		minimum elong	3420 Jul 16 13:16	25°♌20'06	0°54'54
	3415 Aug 29 07:28	0°♍			3420 Jul 23 11:51	0°♏	
	3415 Oct 14 22:18	0°♐		max. Earth dist.	3420 Aug 09 15:17	11°♏23'48	2.59962 AU
	3415 Nov 26 21:29	0°♑		morning rise	3420 Sep 05 00:34	28°♏37'02	
	3416 Jan 06 06:42	0°♒			3420 Sep 07 03:58	0°♑	
evening set	3416 Jan 07 17:04	1°♒05'27			3420 Oct 24 10:11	0°♎	
	3416 Feb 14 00:14	0°♑			3420 Dec 12 05:34	0°♍	
max. Earth dist.	3416 Feb 29 19:49	12°♑27'34	2.36992 AU		3421 Feb 01 16:25	0°♐	
					3421 Apr 03 11:21	0°♑	
conjunction	3416 Mar 11 09:50	20°♑49'27	-1°00'-28	desc. node	3421 Apr 19 04:28	5°♑34'33	
minimum elong	3416 Mar 11 12:02	20°♑53'48	1°00'28	retrograde	3421 May 21 05:52	10°♑59'32	
	3416 Mar 23 00:16	0°♑		opposition	3421 Jun 24 15:30	4°♑07'26	-3°-7'-10
	3416 Apr 30 04:58	0°♑		greatest brilliancy	3421 Jun 26 00:02	3°♑39'28	-2.1m
morning rise	3416 May 21 20:27	16°♑40'55		min. Earth dist.	3421 Jul 03 02:34	1°♑13'55	0.48634 AU
	3416 Jun 08 11:05	0°♐			3421 Jul 06 22:42	30°♑♐	
asc. node	3416 Jul 01 13:31	17°♐04'14		direct	3421 Aug 01 09:22	25°♐41'11	
	3416 Jul 19 12:41	0°♌			3421 Aug 27 10:15	0°♑	
	3416 Sep 01 02:05	0°♏			3421 Oct 25 02:27	0°♒	
	3416 Oct 18 00:51	0°♑			3421 Dec 07 08:09	0°♑	
	3416 Dec 10 08:01	0°♎			3422 Jan 16 18:05	0°♑	
retrograde	3417 Feb 22 23:33	23°♎18'25		asc. node	3422 Feb 21 10:20	26°♑39'16	
opposition	3417 Apr 03 16:26	13°♎57'10	3°19'08		3422 Feb 25 22:43	0°♑	
greatest brilliancy	3417 Apr 04 01:14	13°♎48'30	-1.2m		3422 Apr 08 03:56	0°♐	
min. Earth dist.	3417 Apr 06 01:43	13°♎00'38	0.67096 AU		3422 May 21 00:28	0°♌	
direct	3417 May 15 01:47	3°♎56'30			3422 Jul 04 15:44	0°♏	
desc. node	3417 Jul 15 07:04	20°♎50'50		evening set	3422 Jul 09 21:07	3°♏26'31	
	3417 Aug 02 16:44	0°♍			3422 Aug 19 18:21	0°♑	
	3417 Sep 22 11:37	0°♐					
	3417 Nov 05 14:32	0°♑		conjunction	3422 Aug 27 14:14	5°♑01'25	1°08'18
	3417 Dec 16 06:23	0°♒		minimum elong	3422 Aug 27 14:22	5°♑01'38	1°08'17
	3418 Jan 24 00:07	0°♑		max. Earth dist.	3422 Sep 04 03:00	9°♑50'42	2.66455 AU
greatest brilliancy	3418 Feb 16 03:49	18°♑15'56	1.2m		3422 Oct 05 18:34	0°♎	
	3418 Mar 03 00:03	0°♑		morning rise	3422 Oct 12 01:55	4°♎00'12	
evening set	3418 Mar 17 07:36	11°♑16'55			3422 Nov 22 02:30	0°♍	
	3418 Apr 10 06:54	0°♑			3423 Jan 08 11:54	0°♐	

	3423 Feb 25 04:58	0°☾			3428 Jun 18 23:20	0°♊		
desc. node	3423 Mar 07 03:48	6°☾11'18			3428 Aug 08 22:33	0°♊		
	3423 Apr 15 07:36	0°≈			3428 Sep 25 21:06	0°♊		
	3423 Jun 09 13:00	0°♋		desc. node	3428 Oct 27 00:22	20°♊25'24		
retrograde	3423 Aug 02 22:45	15°♋00'25		evening set	3428 Oct 31 01:54	23°♊08'51		
opposition	3423 Sep 02 01:44	10°♋02'54	-6°-42'-53		3428 Nov 10 05:05	0°♊		
greatest brilliancy	3423 Sep 02 22:21	9°♋49'04	-2.8m	max. Earth dist.	3428 Nov 16 17:14	4°♊26'39	2.53621 AU	
min. Earth dist.	3423 Sep 04 13:31	9°♋22'53	0.37644 AU					
direct	3423 Oct 02 13:19	4°♋50'45		conjunction	3428 Dec 19 01:31	27°♊05'04	0°-29'-56	
	3423 Dec 11 23:13	0°♊		minimum elong	3428 Dec 19 00:18	27°♊02'52	0°29'56	
asc. node	3424 Jan 09 10:15	17°♊21'36			3428 Dec 23 03:19	0°☾		
	3424 Jan 28 23:37	0°♋			3429 Feb 02 00:07	0°≈		
	3424 Mar 14 06:50	0°♊		morning rise	3429 Feb 10 11:09	6°≈22'04		
	3424 Apr 28 18:14	0°☾			3429 Mar 13 08:50	0°♋		
	3424 Jun 14 03:04	0°♊			3429 Apr 20 22:16	0°♊		
	3424 Jul 31 06:27	0°♊			3429 May 29 12:30	0°♋		
evening set	3424 Aug 17 17:52	11°♊03'43			3429 Jul 08 03:00	0°♊		
	3424 Sep 16 15:04	0°♊			3429 Aug 18 22:30	0°☾		
max. Earth dist.	3424 Sep 25 23:51	5°♊57'23	2.67481 AU	asc. node	3429 Aug 31 07:41	8°☾25'48		
					3429 Oct 04 01:18	0°♊		
conjunction	3424 Oct 02 08:47	10°♊00'57	0°53'15		3429 Dec 02 22:05	0°♊		
minimum elong	3424 Oct 02 09:50	10°♊02'38	0°53'14	retrograde	3430 Jan 07 01:04	6°♊53'27		
	3424 Nov 02 12:26	0°♊			3430 Feb 08 11:16	30°♊		
morning rise	3424 Nov 15 12:26	8°♊25'16		min. Earth dist.	3430 Feb 13 04:56	28°♊08'22	0.65153 AU	
	3424 Dec 18 10:20	0°♊		opposition	3430 Feb 16 05:05	26°♊56'01	4°37'03	
desc. node	3425 Jan 22 03:22	23°♊12'25		greatest brilliancy	3430 Feb 15 12:45	27°♊12'24	-1.3m	
	3425 Feb 01 04:00	0°☾		direct	3430 Mar 27 11:52	17°♊37'35		
	3425 Mar 16 18:17	0°≈			3430 May 18 07:16	0°♊		
	3425 Apr 28 11:30	0°♋			3430 Jul 17 19:31	0°♊		
	3425 Jun 10 00:26	0°♊			3430 Sep 06 06:33	0°♊		
	3425 Jul 24 13:04	0°♋		desc. node	3430 Sep 13 23:15	4°♊51'02		
	3425 Sep 22 14:13	0°♊			3430 Oct 22 07:21	0°♊		
retrograde	3425 Oct 14 02:42	3°♊11'31			3430 Dec 04 03:54	0°☾		
	3425 Nov 04 09:32	30°♊		evening set	3430 Dec 16 12:44	9°☾00'45		
min. Earth dist.	3425 Nov 10 00:17	28°♊18'02	0.42930 AU	max. Earth dist.	3431 Jan 04 20:12	23°☾22'12	2.40761 AU	
opposition	3425 Nov 18 00:35	25°♊39'45	0°-31'-8		3431 Jan 13 14:42	0°≈		
greatest brilliancy	3425 Nov 17 18:56	25°♊44'25	-2.5m					
asc. node	3425 Nov 26 08:57	23°♊03'14		conjunction	3431 Feb 12 20:52	23°≈17'32	-1°-4'-32	
direct	3425 Dec 19 14:13	19°♊30'33		minimum elong	3431 Feb 12 20:20	23°≈16'29	1°04'33	
	3426 Feb 02 01:28	0°♊			3431 Feb 21 11:04	0°♋		
	3426 Apr 02 06:10	0°☾			3431 Mar 31 13:33	0°♊		
	3426 May 23 10:38	0°♊		morning rise	3431 Apr 22 08:04	17°♊08'08		
	3426 Jul 11 21:26	0°♊			3431 May 08 19:26	0°♋		
	3426 Aug 29 06:59	0°♊			3431 Jun 17 01:46	0°♊		
evening set	3426 Sep 23 12:54	15°♊58'18		asc. node	3431 Jul 19 06:40	23°♊38'41		
	3426 Oct 15 08:20	0°♊			3431 Jul 28 04:18	0°☾		
max. Earth dist.	3426 Oct 20 00:22	3°♊02'03	2.63096 AU		3431 Sep 09 23:46	0°♊		
					3431 Oct 28 00:04	0°♊		
conjunction	3426 Nov 08 02:26	15°♊33'56	0°17'46		3431 Dec 25 23:35	0°♊		
minimum elong	3426 Nov 08 03:01	15°♊34'54	0°17'45	retrograde	3432 Feb 10 09:43	10°♊39'53		
	3426 Nov 29 16:28	0°♊		opposition	3432 Mar 21 10:52	1°♊04'01	3°54'35	
desc. node	3426 Dec 10 01:53	7°♊03'15		greatest brilliancy	3432 Mar 21 14:06	1°♊00'47	-1.2m	
morning rise	3426 Dec 24 04:35	16°♊44'59		min. Earth dist.	3432 Mar 22 07:47	0°♊43'12	0.67841 AU	
	3427 Jan 12 04:08	0°☾			3432 Mar 24 03:17	30°♊		
	3427 Feb 22 22:12	0°≈		direct	3432 May 01 12:22	21°♊10'07		
	3427 Apr 04 07:07	0°♋			3432 Jun 12 22:00	0°♊		
	3427 May 13 20:23	0°♊		desc. node	3432 Jul 31 22:08	22°♊58'11		
	3427 Jun 22 11:21	0°♋			3432 Aug 13 11:28	0°♊		
	3427 Aug 02 14:34	0°♊			3432 Sep 30 23:08	0°♊		
	3427 Sep 17 08:12	0°☾			3432 Nov 13 11:27	0°☾		
asc. node	3427 Oct 14 07:39	14°☾31'59			3432 Dec 23 23:06	0°≈		
retrograde	3427 Dec 01 13:08	27°☾39'01			3433 Jan 31 15:40	0°♋		
min. Earth dist.	3428 Jan 02 18:01	20°☾36'11	0.56083 AU	evening set	3433 Feb 16 16:17	12°♋38'33		
greatest brilliancy	3428 Jan 08 03:58	18°☾29'58	-1.8m		3433 Mar 10 14:41	0°♊		
opposition	3428 Jan 09 10:51	17°☾59'50	3°43'23		3433 Apr 17 19:38	0°♋		
direct	3428 Feb 14 14:15	9°☾49'06						
	3428 Apr 23 01:43	0°♊		conjunction	3433 Apr 26 10:35	6°♋40'22	0°-26'-12	

minimum elong	3433 Apr 26 12:57	6°♄44'57	0°26'12	opposition	3438 Aug 02 10:08	11°≈05'13	-6°-1'-52
	3433 May 27 03:18	0°♂		greatest brilliancy	3438 Aug 04 07:01	10°≈32'06	-2.6m
asc. node	3433 Jun 05 05:02	6°♂44'54		min. Earth dist.	3438 Aug 09 04:32	9°≈05'58	0.40790 AU
max. Earth dist.	3433 Jun 16 23:15	15°♂23'23	2.42990 AU	direct	3438 Sep 04 22:06	4°≈39'36	
morning rise	3433 Jul 01 22:41	26°♂12'48			3438 Nov 13 04:56	0°♂	
	3433 Jul 07 06:02	0°♄			3438 Dec 29 03:18	0°♂	
	3433 Aug 19 15:11	0°♂		asc. node	3439 Jan 26 01:12	19°♂28'40	
	3433 Oct 04 16:09	0°♄			3439 Feb 10 00:11	0°♄	
	3433 Nov 23 07:34	0°♂			3439 Mar 24 23:15	0°♂	
	3434 Jan 20 15:32	0°♂			3439 May 08 01:51	0°♄	
retrograde	3434 Mar 17 15:25	14°♂16'04			3439 Jun 22 14:07	0°♂	
opposition	3434 Apr 25 09:46	5°♂24'40	2°00'35	evening set	3439 Aug 03 22:27	27°♂15'34	
greatest brilliancy	3434 Apr 25 21:32	5°♂13'15	-1.4m		3439 Aug 08 05:28	0°♄	
min. Earth dist.	3434 Apr 30 01:54	3°♂35'56	0.63914 AU	max. Earth dist.	3439 Sep 18 07:29	26°♄08'27	2.67734 AU
	3434 May 10 00:33	30°♂					
direct	3434 Jun 05 19:01	25°♂23'40		conjunction	3439 Sep 19 08:42	26°♄48'30	1°01'51
desc. node	3434 Jun 18 20:16	26°♂25'09		minimum elong	3439 Sep 19 09:33	26°♄49'52	1°01'50
	3434 Jul 04 14:00	0°♂			3439 Sep 24 09:10	0°♂	
	3434 Sep 06 07:13	0°♂		morning rise	3439 Nov 02 15:42	25°♂03'15	
	3434 Oct 22 15:25	0°♄			3439 Nov 10 08:47	0°♂	
	3434 Dec 03 00:35	0°≈			3439 Dec 26 17:19	0°♂	
	3435 Jan 11 01:38	0°♂		desc. node	3440 Feb 08 18:05	28°♂58'02	
	3435 Feb 18 06:28	0°♂			3440 Feb 10 07:29	0°♄	
	3435 Mar 28 18:26	0°♄			3440 Mar 26 06:31	0°≈	
asc. node	3435 Apr 23 04:46	19°♂21'29			3440 May 10 02:02	0°♂	
evening set	3435 Apr 28 23:19	23°♂41'11			3440 Jun 25 09:14	0°♂	
	3435 May 07 11:02	0°♂			3440 Aug 23 04:24	0°♄	
	3435 Jun 17 22:53	0°♄		retrograde	3440 Sep 19 03:18	4°♂45'27	
				min. Earth dist.	3440 Oct 15 20:11	0°♂18'29	0.38737 AU
conjunction	3435 Jun 28 07:37	7°♄16'10	0°39'38		3440 Oct 16 21:52	30°♂♂	
minimum elong	3435 Jun 28 05:41	7°♄12'48	0°39'37	opposition	3440 Oct 21 09:00	28°♂41'47	-3°-29'-27
max. Earth dist.	3435 Jul 30 06:48	29°♄09'45	2.55988 AU	greatest brilliancy	3440 Oct 20 13:23	28°♂56'07	-2.8m
	3435 Jul 31 12:42	0°♂		direct	3440 Nov 20 06:29	23°♂26'52	
morning rise	3435 Aug 21 00:47	13°♂38'34		asc. node	3440 Dec 13 01:37	26°♂39'40	
	3435 Sep 15 03:46	0°♄			3440 Dec 23 18:16	0°♄	
	3435 Nov 01 17:35	0°♂			3441 Feb 22 09:59	0°♂	
	3435 Dec 21 16:14	0°♂			3441 Apr 13 10:27	0°♄	
	3436 Feb 14 23:06	0°♂			3441 May 31 23:51	0°♂	
retrograde	3436 Apr 29 19:24	22°♂55'56			3441 Jul 19 07:04	0°♄	
desc. node	3436 May 05 19:37	22°♂42'20			3441 Sep 05 04:27	0°♂	
opposition	3436 Jun 04 18:48	15°♂20'28	-1°-20'-8	evening set	3441 Sep 09 07:46	2°♂36'58	
greatest brilliancy	3436 Jun 05 08:41	15°♂07'52	-1.9m	max. Earth dist.	3441 Oct 10 08:49	22°♂24'45	2.65445 AU
min. Earth dist.	3436 Jun 12 15:30	12°♂29'31	0.53797 AU		3441 Oct 22 02:48	0°♂	
direct	3436 Jul 14 06:36	6°♂06'08					
	3436 Sep 21 15:46	0°♄		conjunction	3441 Oct 24 13:33	1°♂35'16	0°33'29
	3436 Nov 07 00:33	0°≈		minimum elong	3441 Oct 24 14:30	1°♂36'48	0°33'28
	3436 Dec 17 21:57	0°♂			3441 Dec 06 14:53	0°♂	
	3437 Jan 26 05:14	0°♂		morning rise	3441 Dec 08 10:24	1°♂13'04	
	3437 Mar 06 15:20	0°♄		desc. node	3441 Dec 26 16:39	13°♂35'05	
asc. node	3437 Mar 10 03:04	2°♂37'20			3442 Jan 19 12:01	0°♄	
	3437 Apr 16 05:13	0°♂			3442 Mar 02 19:45	0°≈	
	3437 May 28 12:52	0°♄			3442 Apr 12 20:46	0°♂	
evening set	3437 Jun 22 06:38	16°♄56'20			3442 May 23 03:58	0°♂	
	3437 Jul 11 18:02	0°♂			3442 Jul 02 17:29	0°♄	
					3442 Aug 14 16:04	0°♂	
conjunction	3437 Aug 12 05:34	20°♂41'16	1°07'02		3442 Oct 06 21:58	0°♄	
minimum elong	3437 Aug 12 05:03	20°♂40'25	1°07'03	asc. node	3442 Oct 31 01:22	7°♄43'44	
max. Earth dist.	3437 Aug 25 17:17	29°♂25'18	2.64565 AU	retrograde	3442 Nov 14 15:03	9°♄11'40	
	3437 Aug 26 14:48	0°♄		min. Earth dist.	3442 Dec 14 13:57	2°♄59'02	0.51085 AU
morning rise	3437 Sep 28 03:12	20°♄48'20		greatest brilliancy	3442 Dec 21 06:11	0°♄29'26	-2.0m
	3437 Oct 12 15:17	0°♂		opposition	3442 Dec 22 09:40	0°♄03'38	2°37'50
	3437 Nov 29 08:57	0°♂			3442 Dec 22 13:33	30°♂♂	
	3438 Jan 16 20:16	0°♂		direct	3443 Jan 25 22:18	22°♂33'05	
	3438 Mar 08 00:58	0°♄			3443 Mar 04 07:33	0°♄	
desc. node	3438 Mar 23 19:20	8°♄58'18			3443 May 07 00:17	0°♂	
	3438 May 03 10:10	0°≈			3443 Jun 28 16:12	0°♄	
retrograde	3438 Jul 02 03:04	16°≈35'58			3443 Aug 17 08:26	0°♂	

	3443 Oct 03 20:23	0°♌		morning rise	3448 Jun 06 18:24	2°♐21'55	
evening set	3443 Oct 16 13:32	8°♌16'26		asc. node	3448 Jun 21 22:16	13°♐35'06	
max. Earth dist.	3443 Nov 05 14:27	21°♌32'40	2.57880 AU		3448 Jul 14 15:25	0°♏	
desc. node	3443 Nov 13 15:25	26°♌57'10			3448 Aug 27 01:25	0°♏	
	3443 Nov 18 03:21	0°♏			3448 Oct 12 12:57	0°♏	
					3448 Dec 03 00:05	0°♏	
conjunction	3443 Dec 02 16:40	9°♏57'56	0°-10'-55		3449 Feb 17 03:20	0°♌	
minimum elong	3443 Dec 02 16:14	9°♏57'12	0°10'55	retrograde	3449 Mar 02 23:51	1°♌06'21	
behind sun begin	3443 Dec 02 01:01	9°♏30'57			3449 Mar 16 03:34	30°♌	
behind sun end	3443 Dec 03 07:28	10°♏23'29		opposition	3449 Apr 11 09:58	21°♏54'30	2°53'29
	3443 Dec 31 05:48	0°♏		greatest brilliancy	3449 Apr 11 20:44	21°♏43'56	-1.3m
morning rise	3444 Jan 21 07:53	15°♏12'43		min. Earth dist.	3449 Apr 14 14:45	20°♏39'04	0.66246 AU
	3444 Feb 10 09:37	0°♏		direct	3449 May 22 21:03	11°♏52'03	
	3444 Mar 21 02:02	0°♏		desc. node	3449 Jul 05 12:31	21°♏24'36	
	3444 Apr 28 22:41	0°♏			3449 Jul 25 05:43	0°♌	
	3444 Jun 06 19:28	0°♏			3449 Sep 16 13:39	0°♏	
	3444 Jul 16 18:08	0°♏			3449 Oct 31 07:49	0°♏	
	3444 Aug 28 07:47	0°♏			3449 Dec 11 04:56	0°♏	
asc. node	3444 Sep 16 23:26	12°♏48'13			3450 Jan 19 00:40	0°♏	
	3444 Oct 16 03:10	0°♏			3450 Feb 26 01:47	0°♏	
retrograde	3444 Dec 24 03:29	22°♏49'30		evening set	3450 Apr 02 09:38	27°♏40'30	
min. Earth dist.	3445 Jan 28 12:15	14°♏40'20	0.62322 AU		3450 Apr 05 09:41	0°♏	
greatest brilliancy	3445 Feb 01 00:38	13°♏16'09	-1.5m	asc. node	3450 May 09 20:09	26°♏13'42	
opposition	3445 Feb 02 00:33	12°♏52'15	4°31'00		3450 May 14 21:26	0°♏	
direct	3445 Mar 12 05:36	3°♏55'41					
	3445 Jun 01 18:33	0°♏		conjunction	3450 Jun 06 09:17	16°♏31'35	0°17'51
	3445 Jul 26 15:30	0°♏		minimum elong	3450 Jun 06 08:01	16°♏29'17	0°17'50
	3445 Sep 13 19:42	0°♏			3450 Jun 25 04:24	0°♏	
desc. node	3445 Sep 30 14:11	10°♏46'43		max. Earth dist.	3450 Jul 16 22:34	15°♏13'18	2.51309 AU
	3445 Oct 29 11:56	0°♏		morning rise	3450 Aug 03 10:56	27°♏11'42	
evening set	3445 Nov 26 23:10	19°♏43'59			3450 Aug 07 14:40	0°♏	
max. Earth dist.	3445 Dec 11 11:18	0°♏05'26	2.45912 AU		3450 Sep 22 06:48	0°♏	
	3445 Dec 11 08:18	0°♏			3450 Nov 09 08:45	0°♏	
					3450 Dec 31 02:41	0°♏	
conjunction	3446 Jan 19 17:47	29°♏05'59	0°-56'-5		3451 Mar 05 19:28	0°♏	
minimum elong	3446 Jan 19 15:59	29°♏02'36	0°56'06	retrograde	3451 Apr 12 02:22	6°♏59'36	
	3446 Jan 20 22:22	0°♏			3451 May 16 04:48	30°♏	
	3446 Feb 28 22:44	0°♏		opposition	3451 May 19 09:15	28°♏49'02	0°10'09
morning rise	3446 Mar 22 23:49	17°♏15'49		greatest brilliancy	3451 Apr 02 22:59	6°♏30'24	-2.0m
	3446 Apr 08 04:30	0°♏		desc. node	3451 May 23 10:45	27°♏17'06	
greatest brilliancy	3446 Apr 16 10:20	6°♏28'57	1.2m	min. Earth dist.	3451 May 26 03:34	26°♏16'33	0.58442 AU
	3446 May 16 12:19	0°♏		direct	3451 Jun 28 23:40	19°♏06'09	
	3446 Jun 24 19:47	0°♏			3451 Aug 12 23:40	0°♏	
asc. node	3446 Aug 04 22:42	29°♏55'26			3451 Oct 06 04:27	0°♏	
	3446 Aug 05 01:18	0°♏			3451 Nov 18 10:50	0°♏	
	3446 Sep 18 08:18	0°♏			3451 Dec 28 06:24	0°♏	
	3446 Nov 07 07:12	0°♏			3452 Feb 04 22:49	0°♏	
retrograde	3447 Jan 28 02:14	27°♏59'35			3452 Mar 14 20:58	0°♏	
opposition	3447 Mar 09 07:46	18°♏12'19	4°19'48	asc. node	3452 Mar 26 19:25	9°♏02'46	
greatest brilliancy	3447 Mar 09 03:54	18°♏16'11	-1.2m		3452 Apr 23 23:45	0°♏	
min. Earth dist.	3447 Mar 08 16:11	18°♏27'54	0.67580 AU	evening set	3452 Jun 02 18:59	28°♏31'37	
direct	3447 Apr 18 20:28	8°♏29'13			3452 Jun 04 21:28	0°♏	
	3447 Jun 29 23:36	0°♏			3452 Jul 18 18:45	0°♏	
desc. node	3447 Aug 18 13:16	26°♏56'30					
	3447 Aug 23 16:20	0°♏		conjunction	3452 Jul 26 18:13	5°♏18'59	1°00'58
	3447 Oct 09 21:02	0°♏		minimum elong	3452 Jul 26 16:58	5°♏16'55	1°00'58
	3447 Nov 22 00:50	0°♏		max. Earth dist.	3452 Aug 15 19:31	18°♏31'40	2.61834 AU
	3448 Jan 01 11:08	0°♏			3452 Sep 02 11:31	0°♏	
evening set	3448 Jan 21 16:57	15°♏33'51		morning rise	3452 Sep 13 16:32	7°♏12'39	
	3448 Feb 09 04:27	0°♏			3452 Oct 19 14:27	0°♏	
	3448 Mar 18 04:08	0°♏			3452 Dec 06 22:16	0°♏	
					3453 Jan 26 00:13	0°♏	
conjunction	3448 Mar 28 00:38	7°♏47'10	0°-51'-22		3453 Mar 21 22:27	0°♏	
minimum elong	3448 Mar 28 03:55	7°♏53'39	0°51'22	desc. node	3453 Apr 09 09:49	8°♏37'41	
	3448 Apr 25 08:35	0°♏		retrograde	3453 Jun 04 00:15	23°♏00'44	
max. Earth dist.	3448 May 07 23:01	9°♏45'04	2.37977 AU	opposition	3453 Jul 07 09:57	16°♏36'35	-4°-13'-26
	3448 Jun 03 14:30	0°♏		greatest brilliancy	3453 Jul 09 03:24	16°♏02'34	-2.3m

min. Earth dist.	3453 Jul 15 19:35	13°  52'22	0.45705 AU	conjunction	3458 Nov 16 18:38	24°  25'26	0°07'39
direct	3453 Aug 12 20:46	8°  47'55		minimum elong	3458 Nov 16 18:55	24°  25'54	0°07'38
	3453 Oct 14 09:54	0° 		behind sun begin	3458 Nov 16 01:30	23°  15'42	
	3453 Nov 29 18:37	0° 		behind sun end	3458 Nov 17 12:21	24°  15'08	
	3454 Jan 10 07:27	0° 			3458 Nov 25 01:13	0° 	
asc. node	3454 Feb 11 19:08	23°  53'15		desc. node	3458 Nov 30 06:20	3°  32'16	
	3454 Feb 20 03:39	0° 		morning rise	3459 Jan 02 20:55	26°  34'12	
	3454 Apr 02 19:32	0° 			3459 Jan 07 09:36	0° 	
	3454 May 16 00:06	0° 			3459 Feb 17 22:36	0° 	
	3454 Jun 29 20:53	0° 			3459 Mar 30 01:16	0° 	
evening set	3454 Jul 19 07:09	12°  41'29			3459 May 08 07:58	0° 	
	3454 Aug 15 02:53	0° 			3459 Jun 16 14:55	0° 	
					3459 Jul 27 03:58	0° 	
conjunction	3454 Sep 05 01:10	13°  23'08	1°07'01		3459 Sep 09 05:10	0° 	
minimum elong	3454 Sep 05 01:37	13°  23'52	1°07'01	asc. node	3459 Oct 04 16:42	15°  41'58	
max. Earth dist.	3454 Sep 09 11:24	16°  12'29	2.67140 AU		3459 Nov 04 19:02	0° 	
	3454 Oct 01 03:33	0° 		retrograde	3459 Dec 10 10:25	7°  32'19	
morning rise	3454 Oct 19 23:18	11°  57'48		min. Earth dist.	3460 Jan 12 19:36	0°  04'29	0.58531 AU
	3454 Nov 17 07:46	0° 			3460 Jan 13 00:13	30° 	
	3455 Jan 03 06:55	0° 		opposition	3460 Jan 18 18:46	27°  43'30	4°07'30
	3455 Feb 19 01:50	0° 		greatest brilliancy	3460 Jan 17 13:06	28°  12'46	-1.6m
desc. node	3455 Feb 25 09:18	4°  02'26		direct	3460 Feb 24 16:54	19°  14'41	
	3455 Apr 07 05:02	0° 			3460 Apr 11 20:28	0° 	
	3455 May 26 09:33	0° 			3460 Jun 12 16:28	0° 	
	3455 Jul 29 22:08	0° 			3460 Aug 03 18:16	0° 	
retrograde	3455 Aug 21 10:29	3°  07'46			3460 Sep 21 02:23	0° 	
	3455 Sep 13 03:53	30° 		desc. node	3460 Oct 17 05:52	17°  02'02	
opposition	3455 Sep 20 13:27	28°  05'32	-6°-6'00		3460 Nov 05 13:30	0° 	
min. Earth dist.	3455 Sep 19 23:21	28°  14'51	0.37125 AU	evening set	3460 Nov 09 09:32	2°  36'52	
greatest brilliancy	3455 Sep 20 14:19	28°  04'58	-2.9m	max. Earth dist.	3460 Nov 24 15:44	13°  30'41	2.50978 AU
direct	3455 Oct 20 02:18	23°  11'07			3460 Dec 18 11:13	0° 	
	3455 Nov 22 17:44	0° 					
asc. node	3455 Dec 30 18:06	18°  19'03		conjunction	3460 Dec 29 19:36	8°  12'37	0°-40'-28
	3456 Jan 19 17:23	0° 		minimum elong	3460 Dec 29 17:59	8°  09'40	0°40'28
	3456 Mar 07 10:43	0° 			3461 Jan 28 05:44	0° 	
	3456 Apr 23 01:02	0° 		morning rise	3461 Feb 24 00:18	20° 	
	3456 Jun 09 00:22	0° 			3461 Mar 08 11:15	0° 	
	3456 Jul 26 11:56	0° 			3461 Apr 15 21:35	0° 	
evening set	3456 Aug 26 01:01	19°  15'44			3461 May 24 08:56	0° 	
	3456 Sep 12 00:18	0° 			3461 Jul 02 19:40	0° 	
max. Earth dist.	3456 Oct 01 05:32	12°  13'33	2.66981 AU	asc. node	3461 Aug 13 07:49	0° 	
					3461 Aug 21 14:43	5°  44'19	
conjunction	3456 Oct 10 09:56	18°  05'53	0°46'46		3461 Sep 27 12:06	0° 	
minimum elong	3456 Oct 10 11:01	18°  07'37	0°46'45		3461 Nov 20 13:10	0° 	
	3456 Oct 28 21:41	0° 		retrograde	3462 Jan 14 18:50	15° 	
morning rise	3456 Nov 23 16:18	16°  47'35		min. Earth dist.	3462 Feb 21 20:18	5° 	0.66306 AU
	3456 Dec 13 15:58	0° 		opposition	3462 Feb 24 00:36	5° 	4°34'11
desc. node	3457 Jan 12 07:36	19°  35'40		greatest brilliancy	3462 Feb 23 12:45	5° 	-1.3m
	3457 Jan 27 01:44	0° 			3462 Mar 09 17:38	30° 	
	3457 Mar 11 03:53	0° 		direct	3462 Apr 04 19:27	25° 	
	3457 Apr 22 03:51	0° 			3462 May 03 14:07	0° 	
	3457 Jun 02 15:38	0° 			3462 Jul 11 08:48	0° 	
	3457 Jul 15 01:11	0° 			3462 Sep 01 00:33	0° 	
	3457 Sep 01 00:08	0° 		desc. node	3462 Sep 04 04:42	1° 	
retrograde	3457 Oct 26 10:17	17°  13'00			3462 Oct 17 10:47	0° 	
asc. node	3457 Nov 16 16:57	14°  20'23			3462 Nov 29 10:11	0° 	
min. Earth dist.	3457 Nov 23 04:42	12°  17'22	0.45757 AU	evening set	3462 Dec 28 16:18	21° 	
opposition	3457 Dec 01 12:32	9°  23'33	0°51'49		3463 Jan 08 21:11	0° 	
greatest brilliancy	3457 Dec 01 01:37	9°  23'06	-2.4m	max. Earth dist.	3463 Jan 26 18:53	13° 	2.38271 AU
direct	3458 Jan 03 05:30	2°  43'02			3463 Feb 16 16:23	0° 	
	3458 Mar 24 16:00	0° 					
	3458 May 17 08:53	0° 		conjunction	3463 Feb 27 23:46	8° 	-1°-4'-4
	3458 Jul 06 17:32	0° 		minimum elong	3463 Feb 28 00:43	8° 	1°04'04
	3458 Aug 24 12:37	0° 			3463 Mar 26 17:27	0° 	
evening set	3458 Oct 01 19:15	24°  14'27			3463 May 03 22:07	0° 	
	3458 Oct 10 17:23	0° 		morning rise	3463 May 09 18:38	4° 	
max. Earth dist.	3458 Oct 25 20:13	9°  15'40	2.61434 AU		3463 Jun 12 03:09	0° 	

asc. node	3463 Jul 09 13:35	20° Π 14'35		min. Earth dist.	3468 Jun 23 23:30	23° \mathcal{Z} 11'51	0.51001 AU
	3463 Jul 23 03:37	0° \mathfrak{S}		direct	3468 Jul 24 07:14	17° \mathcal{Z} 16'28	
	3463 Sep 04 17:21	0° Ω			3468 Sep 09 17:51	0° \mathfrak{Z}	
	3463 Oct 21 23:06	0° \mathfrak{M}			3468 Oct 30 13:25	0° \approx	
	3463 Dec 15 20:06	0° $\underline{\Omega}$			3468 Dec 11 13:53	0° \mathfrak{K}	
retrograde	3464 Feb 18 03:53	18° $\underline{\Omega}$ 23'38			3469 Jan 20 10:02	0° Υ	
opposition	3464 Mar 29 00:47	8° $\underline{\Omega}$ 55'21	3°35'00	asc. node	3469 Feb 28 10:35	29° Υ 25'50	
greatest brilliancy	3464 Mar 29 07:16	8° $\underline{\Omega}$ 48'55	-1.2m		3469 Mar 01 04:53	0° \mathfrak{B}	
min. Earth dist.	3464 Mar 30 17:24	8° $\underline{\Omega}$ 15'04	0.67561 AU		3469 Apr 11 01:31	0° Π	
	3464 Apr 26 12:43	30° \mathfrak{R} \mathfrak{M}			3469 May 23 14:46	0° \mathfrak{S}	
direct	3464 May 09 07:13	28° \mathfrak{M} 57'16		evening set	3469 Jul 02 12:16	27° \mathfrak{S} 00'51	
	3464 May 22 18:24	0° $\underline{\Omega}$			3469 Jul 07 00:08	0° Ω	
desc. node	3464 Jul 22 02:58	21° $\underline{\Omega}$ 47'00					
	3464 Aug 06 17:11	0° \mathfrak{M}		conjunction	3469 Aug 21 03:24	29° Ω 28'03	1°08'18
	3464 Sep 25 12:09	0° \mathcal{Z}		minimum elong	3469 Aug 21 03:16	29° Ω 27'50	1°08'19
	3464 Nov 08 10:01	0° \mathfrak{Z}			3469 Aug 21 23:14	0° \mathfrak{M}	
	3464 Dec 19 01:11	0° \approx		max. Earth dist.	3469 Aug 31 04:53	5° \mathfrak{M} 56'14	2.65716 AU
	3465 Jan 26 18:54	0° \mathfrak{K}		morning rise	3469 Oct 06 04:32	28° \mathfrak{M} 52'57	
evening set	3465 Mar 04 17:11	29° \mathfrak{K} 10'07			3469 Oct 07 22:49	0° $\underline{\Omega}$	
	3465 Mar 05 18:26	0° Υ			3469 Nov 24 10:27	0° \mathfrak{M}	
	3465 Apr 12 23:51	0° \mathfrak{B}			3470 Jan 11 06:02	0° \mathcal{Z}	
					3470 Feb 28 20:56	0° \mathfrak{Z}	
conjunction	3465 May 12 02:04	22° \mathfrak{B} 17'57	0°-9'-41	desc. node	3470 Mar 13 23:39	7° \mathfrak{Z} 54'00	
minimum elong	3465 May 12 02:56	22° \mathfrak{B} 19'35	0°09'42		3470 Apr 21 04:51	0° \approx	
behind sun begin	3465 May 11 04:15	21° \mathfrak{B} 36'42			3470 Jun 29 07:25	0° \mathfrak{K}	
behind sun end	3465 May 13 01:38	23° \mathfrak{B} 02'26		retrograde	3470 Jul 19 15:27	2° \mathfrak{K} 27'29	
	3465 May 22 07:55	0° Π			3470 Aug 08 20:21	30° \mathfrak{R} \approx	
asc. node	3465 May 26 13:44	3° Π 09'48		opposition	3470 Aug 19 03:34	27° \approx 19'44	-6°-38'-43
max. Earth dist.	3465 Jun 29 21:54	28° \mathfrak{B} 11'32	2.45997 AU	greatest brilliancy	3470 Aug 20 14:14	26° \approx 55'34	-2.8m
	3465 Jul 02 10:48	0° \mathfrak{S}		min. Earth dist.	3470 Aug 23 20:07	26° \approx 01'37	0.38754 AU
morning rise	3465 Jul 14 13:03	8° \mathfrak{S} 32'16		direct	3470 Sep 19 21:08	21° \approx 39'00	
	3465 Aug 14 18:44	0° Ω			3470 Oct 26 14:31	0° \mathfrak{K}	
	3465 Sep 29 14:19	0° \mathfrak{M}			3470 Dec 19 20:50	0° Υ	
	3465 Nov 17 11:25	0° $\underline{\Omega}$		asc. node	3471 Jan 16 10:21	18° Υ 09'30	
	3466 Jan 11 08:58	0° \mathfrak{M}			3471 Feb 02 22:02	0° \mathfrak{B}	
retrograde	3466 Mar 26 11:45	22° \mathfrak{M} 34'16			3471 Mar 18 23:15	0° Π	
opposition	3466 May 03 19:02	13° \mathfrak{M} 55'50	1°23'59		3471 May 02 17:26	0° \mathfrak{S}	
greatest brilliancy	3466 May 04 05:06	13° \mathfrak{M} 46'08	-1.5m		3471 Jun 17 15:28	0° Ω	
min. Earth dist.	3466 May 09 05:34	11° \mathfrak{M} 50'21	0.62218 AU		3471 Aug 03 12:44	0° \mathfrak{M}	
desc. node	3466 Jun 09 01:33	4° \mathfrak{M} 08'10		evening set	3471 Aug 12 11:49	5° \mathfrak{M} 41'42	
direct	3466 Jun 14 00:01	3° \mathfrak{M} 58'36			3471 Sep 19 18:50	0° $\underline{\Omega}$	
	3466 Aug 29 14:38	0° \mathcal{Z}		max. Earth dist.	3471 Sep 23 10:40	2° $\underline{\Omega}$ 19'34	2.67695 AU
	3466 Oct 16 16:00	0° \mathfrak{Z}					
	3466 Nov 27 13:50	0° \approx		conjunction	3471 Sep 27 09:57	4° $\underline{\Omega}$ 51'05	0°57'12
	3467 Jan 05 20:12	0° \mathfrak{K}		minimum elong	3471 Sep 27 10:57	4° $\underline{\Omega}$ 52'40	0°57'12
	3467 Feb 13 04:17	0° Υ			3471 Nov 05 17:19	0° \mathfrak{M}	
	3467 Mar 23 19:01	0° \mathfrak{B}		morning rise	3471 Nov 10 13:34	3° \mathfrak{M} 07'23	
asc. node	3467 Apr 13 12:29	15° \mathfrak{B} 46'18			3471 Dec 21 20:07	0° \mathcal{Z}	
	3467 May 02 14:09	0° Π		desc. node	3472 Jan 29 23:10	25° \mathcal{Z} 59'12	
evening set	3467 May 12 17:02	7° Π 25'52			3472 Feb 04 22:33	0° \mathfrak{Z}	
	3467 Jun 13 04:22	0° \mathfrak{S}			3472 Mar 20 02:19	0° \approx	
					3472 May 02 14:17	0° \mathfrak{K}	
conjunction	3467 Jul 09 13:46	18° \mathfrak{S} 18'47	0°49'13		3472 Jun 15 08:41	0° Υ	
minimum elong	3467 Jul 09 11:57	18° \mathfrak{S} 15'40	0°49'11		3472 Aug 01 18:57	0° \mathfrak{B}	
	3467 Jul 26 19:34	0° Ω		retrograde	3472 Oct 03 20:11	21° \mathfrak{B} 48'01	
max. Earth dist.	3467 Aug 06 01:54	6° Ω 51'40	2.58275 AU	min. Earth dist.	3472 Oct 30 07:32	17° \mathfrak{B} 11'15	0.40849 AU
morning rise	3467 Aug 30 08:02	22° Ω 49'17		opposition	3472 Nov 06 14:07	14° \mathfrak{B} 55'07	-1°-44'-22
	3467 Sep 10 09:55	0° \mathfrak{M}		greatest brilliancy	3472 Nov 05 22:59	15° \mathfrak{B} 06'57	-2.7m
	3467 Oct 27 17:55	0° $\underline{\Omega}$		asc. node	3472 Dec 03 09:32	9° \mathfrak{B} 17'39	
	3467 Dec 15 22:45	0° \mathfrak{M}		direct	3472 Dec 07 07:16	9° \mathfrak{B} 11'31	
	3468 Feb 06 16:04	0° \mathcal{Z}			3473 Feb 11 17:10	0° Π	
	3468 Apr 16 19:24	0° \mathfrak{Z}			3473 Apr 06 13:52	0° \mathfrak{S}	
desc. node	3468 Apr 26 00:31	1° \mathfrak{Z} 57'08			3473 May 26 10:39	0° Ω	
retrograde	3468 May 11 12:13	3° \mathfrak{Z} 19'54			3473 Jul 14 08:19	0° \mathfrak{M}	
	3468 Jun 03 15:54	30° \mathfrak{R} \mathcal{Z}			3473 Aug 31 12:25	0° $\underline{\Omega}$	
opposition	3468 Jun 15 16:15	26° \mathcal{Z} 07'04	-2°-19'-33	evening set	3473 Sep 17 10:34	10° $\underline{\Omega}$ 41'43	
greatest brilliancy	3468 Jun 16 16:45	25° \mathcal{Z} 45'24	-2.0m	max. Earth dist.	3473 Oct 15 20:29	28° $\underline{\Omega}$ 54'22	2.64253 AU

	3473 Oct 17 13:01	0°♌			3478 Sep 12 19:26	0°♏		
					3478 Oct 31 08:55	0°♐		
conjunction	3473 Nov 01 19:11	9°♌56'42	0°24'36		3479 Jan 03 00:01	0°♑		
minimum elong	3473 Nov 01 19:56	9°♌57'57	0°24'35	retrograde	3479 Feb 04 17:33	5°♑46'04		
	3473 Dec 01 23:47	0°♐			3479 Mar 06 16:49	30°♐		
desc. node	3473 Dec 16 21:58	10°♐06'49		opposition	3479 Mar 16 21:02	26°♐04'34	4°06'16	
morning rise	3473 Dec 17 06:07	10°♐20'43		greatest brilliancy	3479 Mar 16 21:11	26°♐04'25	-1.2m	
	3474 Jan 14 16:20	0°♑		min. Earth dist.	3479 Mar 17 01:12	26°♐00'24	0.67851 AU	
	3474 Feb 25 17:00	0°♒		direct	3479 Apr 26 17:32	16°♐15'09		
	3474 Apr 07 08:57	0°♓			3479 Jun 20 15:21	0°♑		
	3474 May 17 05:23	0°♑		desc. node	3479 Aug 08 18:13	24°♑48'43		
	3474 Jun 26 04:16	0°♒			3479 Aug 17 18:08	0°♌		
	3474 Aug 06 20:28	0°♐			3479 Oct 04 17:35	0°♐		
	3474 Sep 23 10:16	0°♑			3479 Nov 17 03:28	0°♑		
asc. node	3474 Oct 21 07:39	13°♑15'42			3479 Dec 27 15:38	0°♒		
retrograde	3474 Nov 24 12:12	20°♑29'33			3480 Feb 04 08:59	0°♓		
min. Earth dist.	3474 Dec 25 17:45	13°♑48'22	0.53936 AU	evening set	3480 Feb 05 13:20	0°♓55'42		
opposition	3475 Jan 01 23:46	11°♑01'31	3°20'10		3480 Mar 13 08:10	0°♑		
greatest brilliancy	3474 Dec 31 16:56	11°♑31'11	-1.9m					
direct	3475 Feb 06 09:57	3°♑07'35		conjunction	3480 Apr 13 17:29	24°♑42'37	0°-38'-6	
	3475 Apr 29 04:07	0°♏		minimum elong	3480 Apr 13 20:41	24°♑48'53	0°38'05	
	3475 Jun 22 23:42	0°♐			3480 Apr 20 12:22	0°♒		
	3475 Aug 12 09:13	0°♑			3480 May 29 18:12	0°♐		
	3475 Sep 29 03:56	0°♌		max. Earth dist.	3480 Jun 03 23:34	3°♐54'15	2.40589 AU	
evening set	3475 Oct 25 07:05	17°♌05'12		asc. node	3480 Jun 12 05:25	10°♐00'58		
desc. node	3475 Nov 03 20:39	23°♌28'21		morning rise	3480 Jun 21 11:44	16°♐48'40		
max. Earth dist.	3475 Nov 12 09:56	29°♌14'34	2.55619 AU		3480 Jul 09 18:40	0°♑		
	3475 Nov 13 12:43	0°♐			3480 Aug 22 02:28	0°♏		
					3480 Oct 07 05:29	0°♐		
conjunction	3475 Dec 12 08:19	19°♐54'41	0°-21'-54		3480 Nov 26 10:02	0°♑		
minimum elong	3475 Dec 12 07:26	19°♐53'07	0°21'55		3481 Jan 27 07:08	0°♌		
	3475 Dec 26 13:52	0°♑		retrograde	3481 Mar 11 06:53	9°♌04'04		
morning rise	3476 Feb 01 21:21	27°♑13'25		opposition	3481 Apr 19 08:30	0°♌02'54	2°23'55	
	3476 Feb 05 14:47	0°♒			3481 Apr 19 11:29	30°♌		
	3476 Mar 16 03:25	0°♓		greatest brilliancy	3481 Apr 19 20:08	29°♌51'33	-1.3m	
	3476 Apr 23 20:01	0°♑		min. Earth dist.	3481 Apr 23 08:26	28°♌29'15	0.65083 AU	
	3476 Jun 01 12:35	0°♒		direct	3481 May 30 19:11	20°♌00'35		
	3476 Jul 11 05:02	0°♐		desc. node	3481 Jun 25 16:37	23°♌44'34		
	3476 Aug 22 05:10	0°♑			3481 Jul 14 06:20	0°♌		
asc. node	3476 Sep 07 07:34	10°♑48'41			3481 Sep 10 04:13	0°♐		
	3476 Oct 08 01:47	0°♏			3481 Oct 25 20:05	0°♑		
	3476 Dec 16 20:38	0°♐			3481 Dec 06 01:00	0°♒		
retrograde	3477 Jan 01 04:34	1°♐28'43			3482 Jan 14 00:08	0°♓		
	3477 Jan 15 18:24	30°♐			3482 Feb 21 03:05	0°♑		
min. Earth dist.	3477 Feb 06 13:38	22°♏59'24	0.64011 AU		3482 Mar 31 12:33	0°♒		
greatest brilliancy	3477 Feb 09 10:34	21°♏50'23	-1.4m	evening set	3482 Apr 17 17:01	13°♒10'42		
opposition	3477 Feb 10 06:31	21°♏30'24	4°36'34	asc. node	3482 Apr 30 04:49	22°♒37'18		
direct	3477 Mar 21 02:47	12°♏21'14			3482 May 10 01:47	0°♐		
	3477 May 24 02:56	0°♐						
	3477 Jul 20 20:55	0°♑		conjunction	3482 Jun 19 04:06	29°♐07'05	0°31'08	
	3477 Sep 08 19:21	0°♌		minimum elong	3482 Jun 19 02:18	29°♐03'53	0°31'07	
desc. node	3477 Sep 20 19:24	7°♌37'23			3482 Jun 20 09:59	0°♑		
	3477 Oct 24 17:53	0°♐		max. Earth dist.	3482 Jul 25 01:00	24°♑01'36	2.53977 AU	
	3477 Dec 06 15:34	0°♑			3482 Aug 02 20:45	0°♏		
evening set	3477 Dec 07 18:31	0°♑48'37		morning rise	3482 Aug 13 16:51	7°♏15'38		
max. Earth dist.	3477 Dec 23 18:29	12°♑28'59	2.43025 AU		3482 Sep 17 10:44	0°♐		
	3478 Jan 16 04:52	0°♒			3482 Nov 04 03:55	0°♑		
					3482 Dec 24 17:06	0°♌		
conjunction	3478 Feb 01 22:09	12°♒45'57	-1°-2'-8		3483 Feb 20 13:43	0°♐		
minimum elong	3478 Feb 01 20:51	12°♒43'26	1°02'09	retrograde	3483 Apr 22 10:31	16°♐20'24		
	3478 Feb 24 03:32	0°♓		desc. node	3483 May 13 15:39	13°♐30'05		
	3478 Apr 03 07:30	0°♑		opposition	3483 May 29 00:57	8°♐28'12	0°-39'-54	
morning rise	3478 Apr 08 19:04	4°♑19'06		greatest brilliancy	3483 May 29 07:34	8°♐22'05	-1.8m	
	3478 May 11 13:52	0°♒		min. Earth dist.	3483 Jun 05 10:49	5°♐44'10	0.55959 AU	
	3478 Jun 19 19:39	0°♐			3483 Jun 25 22:21	30°♐		
asc. node	3478 Jul 26 07:13	26°♐43'26		direct	3483 Jul 08 02:02	28°♐59'13		
	3478 Jul 30 21:44	0°♑			3483 Jul 20 16:16	0°♐		

	3483 Sep 28 08:01	0°☾		minimum elong	3488 Oct 18 12:41	26°☾16'02	0°39'20
	3483 Nov 12 03:09	0°≈			3488 Oct 24 07:20	0°♌	
	3483 Dec 22 12:26	0°✠		morning rise	3488 Dec 02 00:11	25°♌22'31	
	3484 Jan 30 12:21	0°☿			3488 Dec 08 22:46	0°♊	
	3484 Mar 09 16:13	0°♊		desc. node	3489 Jan 02 12:41	16°♊34'45	
asc. node	3484 Mar 17 03:52	5°♊39'10			3489 Jan 22 02:03	0°☾	
	3484 Apr 18 23:51	0°♈			3489 Mar 05 18:10	0°≈	
	3484 May 31 01:32	0°☾			3489 Apr 16 05:02	0°✠	
evening set	3484 Jun 14 02:59	9°☾43'35			3489 May 26 23:14	0°☿	
	3484 Jul 14 01:49	0°♈			3489 Jul 07 03:45	0°♊	
					3489 Aug 20 10:59	0°♈	
conjunction	3484 Aug 05 07:35	14°♈42'40	1°05'06		3489 Oct 27 13:52	0°☾	
minimum elong	3484 Aug 05 06:45	14°♈41'18	1°05'06	retrograde	3489 Nov 06 15:44	0°☾43'27	
max. Earth dist.	3484 Aug 21 15:15	25°♈21'12	2.63441 AU	asc. node	3489 Nov 07 01:42	0°☾43'23	
	3484 Aug 28 19:37	0°♎			3489 Nov 16 11:08	30°♎♈	
morning rise	3484 Sep 22 00:45	15°♎31'51		min. Earth dist.	3489 Dec 05 14:48	24°♈54'20	0.48703 AU
	3484 Oct 14 20:15	0°♌		opposition	3489 Dec 13 18:13	21°♈56'27	1°58'31
	3484 Dec 01 19:12	0°♌		greatest brilliancy	3489 Dec 12 19:39	22°♈17'06	-2.2m
	3485 Jan 19 20:53	0°♊		direct	3490 Jan 16 11:20	14°♈47'05	
	3485 Mar 12 15:13	0°☾			3490 Mar 13 20:12	0°☾	
desc. node	3485 Mar 30 15:34	9°☾37'33			3490 May 10 20:15	0°♈	
	3485 May 16 00:50	0°≈			3490 Jul 01 09:43	0°♎	
retrograde	3485 Jun 19 06:44	6°≈13'13			3490 Aug 19 16:39	0°♌	
opposition	3485 Jul 21 11:37	0°≈19'10	-5°-18'-12		3490 Oct 06 02:19	0°♌	
	3485 Jul 22 12:23	30°♎☾		evening set	3490 Oct 10 04:20	2°♌38'45	
greatest brilliancy	3485 Jul 23 10:07	29°☾43'07	-2.5m	max. Earth dist.	3490 Oct 31 22:24	16°♌55'07	2.59569 AU
min. Earth dist.	3485 Jul 29 06:46	27°☾54'49	0.42852 AU	desc. node	3490 Nov 20 11:33	0°♊01'24	
direct	3485 Aug 25 09:45	23°☾14'49			3490 Nov 20 10:43	0°♊	
	3485 Sep 26 22:37	0°≈					
	3485 Nov 20 17:42	0°✠		conjunction	3490 Nov 25 17:01	3°♊34'27	0°-3'00
	3486 Jan 03 04:05	0°☿		minimum elong	3490 Nov 25 16:55	3°♊34'17	0°03'01
asc. node	3486 Feb 02 01:48	21°☿28'00		behind sun begin	3490 Nov 24 21:18	3°♊00'54	
	3486 Feb 13 22:49	0°♊		behind sun end	3490 Nov 26 12:33	4°♊07'43	
	3486 Mar 28 05:31	0°♈			3491 Jan 02 16:46	0°☾	
	3486 May 10 20:22	0°☾		morning rise	3491 Jan 13 01:33	7°☾24'05	
	3486 Jun 25 00:27	0°♈			3491 Feb 13 01:21	0°≈	
evening set	3486 Jul 28 08:27	21°♈35'59			3491 Mar 24 22:44	0°✠	
	3486 Aug 10 10:48	0°♎			3491 May 02 23:37	0°☿	
					3491 Jun 11 00:08	0°♊	
conjunction	3486 Sep 13 07:04	21°♎34'53	1°04'26		3491 Jul 21 03:09	0°♈	
minimum elong	3486 Sep 13 07:47	21°♎36'00	1°04'26		3491 Sep 02 02:54	0°☾	
max. Earth dist.	3486 Sep 14 16:29	22°♎28'01	2.67581 AU	asc. node	3491 Sep 25 00:00	14°☾30'04	
	3486 Sep 26 12:43	0°♌			3491 Oct 22 20:13	0°♈	
morning rise	3486 Oct 27 19:11	19°♌54'29		retrograde	3491 Dec 18 23:11	16°♌54'25	
	3486 Nov 12 14:23	0°♌		min. Earth dist.	3492 Jan 22 11:17	9°♌03'18	0.60739 AU
	3486 Dec 29 05:14	0°♊		opposition	3492 Jan 27 15:49	6°♌59'38	4°23'49
	3487 Feb 13 07:19	0°☾		greatest brilliancy	3492 Jan 26 12:49	7°♌26'28	-1.5m
desc. node	3487 Feb 15 14:23	1°☾30'04			3492 Feb 18 00:53	30°♎☾	
	3487 Mar 31 02:32	0°≈		direct	3492 Mar 05 08:03	28°☾14'50	
	3487 May 16 09:02	0°✠			3492 Mar 22 20:08	0°♈	
	3487 Jul 05 05:42	0°☿			3492 Jun 05 19:19	0°♎	
retrograde	3487 Sep 07 16:51	21°☿31'53			3492 Jul 29 09:24	0°♌	
min. Earth dist.	3487 Oct 05 06:10	17°☿01'24	0.37613 AU		3492 Sep 16 05:49	0°♌	
opposition	3487 Oct 08 19:15	16°☿02'38	-4°-47'-2	desc. node	3492 Oct 07 10:27	13°♌41'28	
greatest brilliancy	3487 Oct 08 04:49	16°☿12'37	-2.9m		3492 Oct 31 21:10	0°♊	
direct	3487 Nov 07 07:55	11°☿03'44		evening set	3492 Nov 19 04:17	12°♊34'27	
asc. node	3487 Dec 21 01:48	21°☿48'05		max. Earth dist.	3492 Dec 03 16:36	22°♊46'18	2.48232 AU
	3488 Jan 07 09:39	0°♊			3492 Dec 13 19:26	0°☾	
	3488 Feb 28 18:29	0°♈		conjunction	3493 Jan 10 07:12	20°☾06'12	0°-50'-1
	3488 Apr 16 23:29	0°☾		minimum elong	3493 Jan 10 05:23	20°☾02'49	0°50'00
	3488 Jun 03 17:54	0°♈			3493 Jan 23 12:31	0°≈	
	3488 Jul 21 15:37	0°♎			3493 Mar 03 15:47	0°✠	
evening set	3488 Sep 03 05:58	27°♎23'40		morning rise	3493 Mar 10 16:36	5°✠28'44	
	3488 Sep 07 08:54	0°♌			3493 Apr 10 23:33	0°☿	
max. Earth dist.	3488 Oct 06 11:57	18°♌32'05	2.66239 AU		3493 May 19 08:24	0°♊	
					3493 Jun 27 16:12	0°♈	
conjunction	3488 Oct 18 11:40	26°♌14'22	0°39'20				

	3493 Aug 07 22:29	0°☿			3498 Aug 20 08:05	0°♏		
asc. node	3493 Aug 11 22:56	2°☿49'09			3498 Oct 10 06:49	0°♏		
	3493 Sep 21 10:59	0°♏			3498 Nov 21 22:15	0°♏		
	3493 Nov 11 13:10	0°♏			3498 Dec 31 12:00	0°♏		
retrograde	3494 Jan 22 10:42	22°♏59'33			3499 Feb 08 00:07	0°♏		
min. Earth dist.	3494 Mar 02 08:40	13°♏40'38	0.67136 AU		3499 Mar 18 17:58	0°♏		
opposition	3494 Mar 03 17:05	13°♏08'10	4°27'10	asc. node	3499 Apr 03 19:30	12°♏12'35		
greatest brilliancy	3494 Mar 03 09:40	13°♏15'36	-1.2m		3499 Apr 27 16:06	0°♏		
direct	3494 Apr 12 22:48	3°♏31'19		evening set	3499 May 25 14:24	20°♏14'53		
	3494 Jul 04 05:47	0°♏			3499 Jun 08 08:56	0°☿		
desc. node	3494 Aug 25 09:02	29°♏16'34						
	3494 Aug 26 13:39	0°♏		conjunction	3499 Jul 20 04:38	28°☿43'29	0°56'45	
	3494 Oct 12 11:38	0°♏		minimum elong	3499 Jul 20 03:07	28°☿40'55	0°56'44	
	3494 Nov 24 14:52	0°♏			3499 Jul 22 02:13	0°♏		
	3495 Jan 04 02:35	0°♏		max. Earth dist.	3499 Aug 12 12:35	14°♏14'34	2.60351 AU	
evening set	3495 Jan 10 20:48	5°♏09'14			3499 Sep 05 16:36	0°♏		
	3495 Feb 11 21:26	0°♏		morning rise	3499 Sep 08 06:19	1°♏39'35		
					3499 Oct 22 20:40	0°♏		
conjunction	3495 Mar 16 02:30	25°♏24'32	0°-58'-44		3499 Dec 10 11:56	0°♏		
minimum elong	3495 Mar 16 05:00	25°♏29'30	0°58'44		3500 Jan 30 11:48	0°♏		
max. Earth dist.	3495 Mar 18 09:32	27°♏13'23	2.36941 AU		3500 Mar 30 00:33	0°♏		
	3495 Mar 21 21:48	0°♏		desc. node	3500 Apr 17 05:41	7°♏09'45		
	3495 Apr 29 01:57	0°♏		retrograde	3500 May 25 06:47	14°♏33'20		
morning rise	3495 May 26 12:33	21°♏07'25		opposition	3500 Jun 28 12:45	7°♏46'18	-3°-23'-23	
	3495 Jun 07 06:35	0°♏		greatest brilliancy	3500 Jun 29 23:43	7°♏16'32	-2.2m	
asc. node	3495 Jun 29 22:44	16°♏47'45		min. Earth dist.	3500 Jul 07 01:19	4°♏53'19	0.48087 AU	
	3495 Jul 18 05:44	0°☿			3500 Jul 27 04:21	30°♏♏		
	3495 Aug 30 15:23	0°♏		direct	3500 Aug 05 01:55	29°♏26'51		
	3495 Oct 16 07:20	0°♏			3500 Aug 14 02:37	0°♏		
	3495 Dec 07 18:34	0°♏			3500 Oct 22 16:47	0°♏		
retrograde	3496 Feb 26 00:42	26°♏07'34			3500 Dec 05 15:32	0°♏		
opposition	3496 Apr 05 15:59	16°♏47'47	3°11'55		3501 Jan 15 07:07	0°♏		
greatest brilliancy	3496 Apr 06 01:03	16°♏38'50	-1.3m	asc. node	3501 Feb 19 19:24	26°♏28'28		
min. Earth dist.	3496 Apr 08 04:15	15°♏48'18	0.66957 AU		3501 Feb 24 13:44	0°♏		
direct	3496 May 17 01:42	6°♏46'48			3501 Apr 06 19:12	0°♏		
desc. node	3496 Jul 12 08:16	21°♏27'56			3501 May 19 15:03	0°☿		
	3496 Jul 30 03:15	0°♏			3501 Jul 03 05:22	0°♏		
	3496 Sep 19 19:28	0°♏		evening set	3501 Jul 13 06:30	6°♏36'52		
	3496 Nov 03 05:48	0°♏			3501 Aug 18 07:12	0°♏		
	3496 Dec 14 01:13	0°♏						
	3497 Jan 21 20:34	0°♏		conjunction	3501 Aug 30 18:47	8°♏00'30	1°08'02	
greatest brilliancy	3497 Feb 05 06:08	11°♏20'19	1.2m	minimum elong	3501 Aug 30 19:00	8°♏00'51	1°08'03	
	3497 Feb 28 20:49	0°♏		max. Earth dist.	3501 Sep 06 15:24	12°♏23'44	2.66613 AU	
evening set	3497 Mar 21 01:07	15°♏53'37			3501 Oct 04 06:53	0°♏		
	3497 Apr 08 03:01	0°♏		morning rise	3501 Oct 15 03:19	6°♏53'22		
asc. node	3497 May 16 20:29	29°♏30'40			3501 Nov 20 14:05	0°♏		
	3497 May 17 12:12	0°♏			3502 Jan 06 21:27	0°♏		
					3502 Feb 23 09:25	0°♏		
conjunction	3497 May 26 19:56	6°♏55'29	0°06'38	desc. node	3502 Mar 05 05:02	6°♏08'59		
minimum elong	3497 May 26 19:25	6°♏54'31	0°06'37		3502 Apr 12 23:12	0°♏		
behind sun begin	3497 May 25 18:42	6°♏08'51			3502 Jun 05 02:30	0°♏		
behind sun end	3497 May 27 20:07	7°♏40'06		retrograde	3502 Aug 08 02:41	19°♏45'19		
	3497 Jun 27 15:58	0°☿		opposition	3502 Sep 07 02:44	14°♏48'48	-6°-38'-11	
max. Earth dist.	3497 Jul 10 08:25	8°☿56'51	2.49004 AU	greatest brilliancy	3502 Sep 07 19:43	14°♏37'32	-2.9m	
morning rise	3497 Jul 26 04:25	19°☿55'30		min. Earth dist.	3502 Sep 09 01:27	14°♏17'52	0.37460 AU	
	3497 Aug 09 23:45	0°♏		direct	3502 Oct 07 07:00	9°♏42'01		
	3497 Sep 24 15:33	0°♏			3502 Dec 08 07:28	0°♏		
	3497 Nov 11 23:12	0°♏		asc. node	3503 Jan 07 18:23	17°♏55'07		
	3498 Jan 03 17:14	0°♏			3503 Jan 26 19:04	0°♏		
	3498 Mar 21 15:07	0°♏			3503 Mar 13 12:20	0°♏		
retrograde	3498 Apr 04 17:52	1°♏08'04			3503 Apr 28 03:38	0°☿		
	3498 Apr 18 02:35	30°♏♏			3503 Jun 13 14:06	0°♏		
opposition	3498 May 12 12:21	22°♏44'05	0°42'55		3503 Jul 30 18:20	0°♏		
greatest brilliancy	3498 May 12 18:35	22°♏38'10	-1.6m	evening set	3503 Aug 21 21:32	14°♏00'07		
min. Earth dist.	3498 May 18 16:43	20°♏23'09	0.60248 AU		3503 Sep 16 03:41	0°♏		
desc. node	3498 May 30 06:56	16°♏25'45		max. Earth dist.	3503 Sep 29 15:36	8°♏34'49	2.67402 AU	
direct	3498 Jun 22 10:19	12°♏53'28						

conjunction	3503 Oct 06 10:55	12° Ω 55'07	0°51'27		3508 Jul 06 19:34	0° Π	
minimum elong	3503 Oct 06 11:59	12° Ω 56'49	0°51'27		3508 Aug 17 10:28	0° Θ	
	3503 Nov 02 01:51	0° \mathbb{M}		asc. node	3508 Aug 29 15:11	8° Θ 21'46	
morning rise	3503 Nov 19 14:24	11° \mathbb{M} 21'26			3508 Oct 02 02:10	0° Ω	
	3503 Dec 18 00:16	0° \mathcal{A}			3508 Nov 28 05:10	0° \mathbb{M}	
desc. node	3504 Jan 21 03:32	22° \mathcal{A} 49'13		retrograde	3509 Jan 10 00:44	9° \mathbb{M} 47'37	
	3504 Jan 31 17:47	0° Θ		min. Earth dist.	3509 Feb 16 08:34	0° \mathbb{M} 59'42	0.65410 AU
	3504 Mar 15 06:52	0° \approx			3509 Feb 18 20:10	30° \mathbb{R} Ω	
	3504 Apr 26 21:19	0° \mathcal{H}		opposition	3509 Feb 19 05:44	29° Ω 50'25	4°36'52
	3504 Jun 08 04:16	0° Υ		greatest brilliancy	3509 Feb 18 14:10	0° \mathbb{M} 06'00	-1.3m
	3504 Jul 22 00:37	0° \mathcal{B}		direct	3509 Mar 30 15:35	20° Ω 30'14	
	3504 Sep 14 07:29	0° Π			3509 May 14 01:33	0° \mathbb{M}	
retrograde	3504 Oct 18 03:33	7° Π 24'05			3509 Jul 15 18:04	0° Ω	
min. Earth dist.	3504 Nov 14 03:09	2° Π 25'58	0.43440 AU		3509 Sep 04 16:24	0° \mathbb{M}	
	3504 Nov 21 10:46	30° \mathbb{R} \mathcal{B}		desc. node	3509 Sep 12 00:48	4° \mathbb{M} 36'10	
opposition	3504 Nov 22 05:53	29° \mathcal{B} 43'59	0°-9'-7		3509 Oct 20 22:51	0° \mathcal{A}	
greatest brilliancy	3505 Mar 03 17:20	15° Π 33'29	-3.6m		3509 Dec 02 22:55	0° Θ	
asc. node	3504 Nov 24 17:02	28° \mathcal{B} 55'00		evening set	3509 Dec 20 06:13	12° Θ 37'04	
direct	3504 Dec 24 02:04	23° \mathcal{B} 28'38		max. Earth dist.	3510 Jan 09 05:24	27° Θ 31'38	2.40239 AU
	3505 Jan 27 01:00	0° Π			3510 Jan 12 11:49	0° \approx	
	3505 Mar 30 20:11	0° Θ					
	3505 May 21 14:03	0° Ω		conjunction	3510 Feb 17 04:24	27° \approx 30'11	-1°-4'-50
	3505 Jul 10 05:59	0° \mathbb{M}		minimum elong	3510 Feb 17 04:11	27° \approx 29'45	1°04'52
	3505 Aug 27 18:29	0° Ω			3510 Feb 20 09:05	0° \mathcal{H}	
evening set	3505 Sep 26 15:22	18° Ω 53'16			3510 Mar 30 11:21	0° Υ	
	3505 Oct 13 22:06	0° \mathbb{M}		morning rise	3510 Apr 27 06:27	21° Υ 52'38	
max. Earth dist.	3505 Oct 22 12:40	5° \mathbb{M} 35'38	2.62790 AU		3510 May 07 16:07	0° \mathcal{B}	
					3510 Jun 15 20:28	0° Π	
conjunction	3505 Nov 11 06:42	18° \mathbb{M} 35'15	0°14'57	asc. node	3510 Jul 17 13:46	23° Π 21'51	
minimum elong	3505 Nov 11 07:12	18° \mathbb{M} 36'05	0°14'57		3510 Jul 26 20:01	0° Θ	
behind sun begin	3505 Nov 11 00:01	18° \mathbb{M} 24'10			3510 Sep 08 10:51	0° Ω	
behind sun end	3505 Nov 11 14:23	18° \mathbb{M} 48'01			3510 Oct 26 01:24	0° \mathbb{M}	
	3505 Nov 28 08:01	0° \mathcal{A}			3510 Dec 22 03:48	0° Ω	
desc. node	3505 Dec 08 02:17	6° \mathcal{A} 36'49		retrograde	3511 Feb 13 09:46	13° Ω 29'04	
morning rise	3505 Dec 27 13:01	19° \mathcal{A} 59'01		opposition	3511 Mar 25 10:16	3° Ω 54'22	3°49'07
	3506 Jan 10 21:00	0° Θ		greatest brilliancy	3511 Mar 25 14:04	3° Ω 50'35	-1.2m
	3506 Feb 21 15:46	0° \approx		min. Earth dist.	3511 Mar 26 10:13	3° Ω 30'33	0.67826 AU
	3506 Apr 03 00:46	0° \mathcal{H}			3511 Apr 04 13:23	30° \mathbb{R} \mathbb{M}	
	3506 May 12 13:16	0° Υ		direct	3511 May 05 13:17	23° \mathbb{M} 59'49	
	3506 Jun 21 02:01	0° \mathcal{B}			3511 Jun 08 16:40	0° Ω	
	3506 Jul 31 23:40	0° Π		desc. node	3511 Jul 30 23:03	23° Ω 09'20	
	3506 Sep 15 00:18	0° Θ			3511 Aug 12 09:55	0° \mathbb{M}	
asc. node	3506 Oct 12 16:41	15° Θ 28'40			3511 Sep 30 10:22	0° \mathcal{A}	
	3506 Nov 23 04:32	0° Ω			3511 Nov 13 04:28	0° Θ	
retrograde	3506 Dec 04 18:27	0° Ω 55'06			3511 Dec 23 19:19	0° \approx	
	3506 Dec 15 23:31	30° \mathbb{R} Θ			3512 Jan 31 13:30	0° \mathcal{H}	
min. Earth dist.	3507 Jan 06 05:05	23° Θ 47'44	0.56566 AU	evening set	3512 Feb 22 04:00	17° \mathcal{H} 02'43	
greatest brilliancy	3507 Jan 11 11:55	21° Θ 44'06	-1.7m		3512 Mar 09 12:51	0° Υ	
opposition	3507 Jan 12 19:07	21° Θ 13'36	3°51'13		3512 Apr 16 17:02	0° \mathcal{B}	
direct	3507 Feb 18 01:54	12° Θ 59'29					
	3507 Apr 20 18:44	0° Ω		conjunction	3512 May 01 00:23	11° \mathcal{B} 03'38	0°-22'-17
	3507 Jun 17 23:07	0° \mathbb{M}		minimum elong	3512 May 01 02:26	11° \mathcal{B} 07'34	0°22'16
	3507 Aug 08 07:01	0° Ω			3512 May 25 23:02	0° Π	
	3507 Sep 25 10:14	0° \mathbb{M}		asc. node	3512 Jun 03 13:50	6° Π 25'32	
desc. node	3507 Oct 26 01:53	20° \mathbb{M} 02'16		max. Earth dist.	3512 Jun 21 11:09	19° Π 33'35	2.43536 AU
evening set	3507 Nov 04 07:58	26° \mathbb{M} 14'24		morning rise	3512 Jul 05 23:41	0° Θ 00'39	
	3507 Nov 09 21:24	0° \mathcal{A}			3512 Jul 05 23:20	0° Θ	
max. Earth dist.	3507 Nov 20 17:37	7° \mathcal{A} 24'33	2.53116 AU		3512 Aug 18 05:24	0° Ω	
	3507 Dec 22 21:48	0° Θ			3512 Oct 03 01:59	0° \mathbb{M}	
					3512 Nov 21 08:43	0° Ω	
conjunction	3507 Dec 23 14:08	0° Θ 29'16	0°-32'-47		3513 Jan 17 05:30	0° \mathbb{M}	
minimum elong	3507 Dec 23 12:48	0° Θ 26'53	0°32'48	retrograde	3513 Mar 20 20:03	17° \mathbb{M} 10'38	
	3508 Feb 01 19:55	0° \approx		opposition	3513 Apr 28 12:13	8° \mathbb{M} 21'17	1°50'26
morning rise	3508 Feb 15 12:50	10° \approx 19'50		greatest brilliancy	3513 Apr 28 23:26	8° \mathbb{M} 10'25	-1.4m
	3508 Mar 12 05:08	0° \mathcal{H}		min. Earth dist.	3513 May 03 07:09	6° \mathbb{M} 30'00	0.63627 AU
	3508 Apr 19 18:18	0° Υ			3513 May 24 00:22	30° \mathbb{R} Ω	
	3508 May 28 07:25	0° \mathcal{B}		direct	3513 Jun 08 20:43	28° Ω 20'57	

desc. node	3513 Jun 16 21:48	28° Ω 44'45		minimum elong	3518 Sep 22 10:53	29° η 42'25	1°00'37
	3513 Jun 25 14:24	0° \mathbb{M}			3518 Sep 22 21:57	0° Ω	
	3513 Sep 04 03:40	0° \mathcal{A}		morning rise	3518 Nov 05 16:02	27° Ω 55'13	
	3513 Oct 21 02:45	0° \mathcal{C}			3518 Nov 08 21:50	0° \mathbb{M}	
	3513 Dec 01 17:36	0° \approx			3518 Dec 25 05:57	0° \mathcal{A}	
	3514 Jan 09 21:10	0° \mathcal{H}		desc. node	3519 Feb 06 19:11	28° \mathcal{A} 41'30	
	3514 Feb 17 02:48	0° \mathcal{Y}			3519 Feb 08 18:26	0° \mathcal{C}	
	3514 Mar 27 14:25	0° \mathcal{B}			3519 Mar 25 13:44	0° \approx	
asc. node	3514 Apr 21 13:01	19° \mathcal{B} 00'40			3519 May 09 01:54	0° \mathcal{H}	
evening set	3514 May 03 04:40	27° \mathcal{B} 44'05			3519 Jun 23 15:06	0° \mathcal{Y}	
	3514 May 06 05:52	0° \mathbb{I}			3519 Aug 16 09:20	0° \mathcal{B}	
	3514 Jun 16 15:59	0° \mathcal{E}		retrograde	3519 Sep 24 14:31	9° \mathcal{B} 29'16	
				min. Earth dist.	3519 Oct 21 03:44	5° \mathcal{B} 01'57	0.39109 AU
conjunction	3514 Jul 02 01:44	10° \mathcal{E} 47'41	0°42'20	greatest brilliancy	3519 Oct 26 07:59	3° \mathcal{B} 30'27	-2.8m
minimum elong	3514 Jul 01 23:48	10° \mathcal{E} 44'19	0°42'19	opposition	3519 Oct 27 03:18	3° \mathcal{B} 16'12	-3°-4'-14
	3514 Jul 30 03:44	0° Ω			3519 Nov 08 09:32	30° \mathcal{R} \mathcal{Y}	
max. Earth dist.	3514 Aug 02 06:48	2° Ω 06'12	2.56440 AU	direct	3519 Nov 26 02:46	27° \mathcal{Y} 56'04	
morning rise	3514 Aug 24 09:24	16° Ω 47'17		asc. node	3519 Dec 12 10:09	29° \mathcal{Y} 36'32	
	3514 Sep 13 16:24	0° \mathbb{M}			3519 Dec 14 07:12	0° \mathcal{B}	
	3514 Oct 31 02:51	0° Ω			3520 Feb 20 17:44	0° \mathbb{I}	
	3514 Dec 19 18:38	0° \mathbb{M}			3520 Apr 11 12:10	0° \mathcal{E}	
	3515 Feb 12 02:41	0° \mathcal{A}			3520 May 30 07:33	0° Ω	
retrograde	3515 May 04 10:07	26° \mathcal{A} 11'26			3520 Jul 17 17:34	0° \mathbb{M}	
desc. node	3515 May 04 20:46	26° \mathcal{A} 11'22			3520 Sep 03 16:54	0° Ω	
opposition	3515 Jun 09 07:11	18° \mathcal{A} 39'47	-1°-35'-3	evening set	3520 Sep 12 08:42	5° Ω 28'14	
greatest brilliancy	3515 Jun 09 23:37	18° \mathcal{A} 24'56	-1.9m	max. Earth dist.	3520 Oct 12 20:29	24° Ω 55'43	2.65248 AU
min. Earth dist.	3515 Jun 17 06:49	15° \mathcal{A} 47'19	0.53298 AU		3520 Oct 20 17:02	0° \mathbb{M}	
direct	3515 Jul 18 15:43	9° \mathcal{A} 29'33					
	3515 Sep 19 19:55	0° \mathcal{C}		conjunction	3520 Oct 27 14:38	4° \mathbb{M} 28'35	0°31'02
	3515 Nov 06 06:54	0° \approx		minimum elong	3520 Oct 27 15:32	4° \mathbb{M} 30'02	0°31'03
	3515 Dec 17 11:42	0° \mathcal{H}			3520 Dec 05 06:38	0° \mathcal{A}	
	3516 Jan 25 21:41	0° \mathcal{Y}		morning rise	3520 Dec 11 13:46	4° \mathcal{A} 13'59	
	3516 Mar 05 08:23	0° \mathcal{B}		desc. node	3520 Dec 24 18:05	13° \mathcal{A} 09'49	
asc. node	3516 Mar 08 11:17	2° \mathcal{B} 20'46			3521 Jan 18 04:41	0° \mathcal{C}	
	3516 Apr 14 21:46	0° \mathbb{I}			3521 Mar 01 12:30	0° \approx	
	3516 May 27 04:19	0° \mathcal{E}			3521 Apr 11 12:39	0° \mathcal{H}	
evening set	3516 Jun 25 19:42	20° \mathcal{E} 16'15			3521 May 21 17:41	0° \mathcal{Y}	
	3516 Jul 10 08:15	0° Ω			3521 Jul 01 02:37	0° \mathcal{B}	
					3521 Aug 12 13:41	0° \mathbb{I}	
conjunction	3516 Aug 15 11:57	23° Ω 44'47	1°07'32		3521 Oct 02 08:22	0° \mathcal{E}	
minimum elong	3516 Aug 15 11:32	23° Ω 44'06	1°07'31	asc. node	3521 Oct 29 08:01	10° \mathcal{E} 10'14	
	3516 Aug 25 03:51	0° \mathbb{M}		retrograde	3521 Nov 18 01:46	12° \mathcal{E} 48'31	
max. Earth dist.	3516 Aug 28 05:40	1° \mathbb{M} 59'01	2.64799 AU	min. Earth dist.	3521 Dec 18 07:33	6° \mathcal{E} 30'08	0.51657 AU
morning rise	3516 Oct 01 05:05	23° \mathbb{M} 42'34		greatest brilliancy	3521 Dec 24 19:56	4° \mathcal{E} 03'05	-2.0m
	3516 Oct 11 03:08	0° Ω		opposition	3521 Dec 26 01:02	3° \mathcal{E} 35'36	2°50'45
	3516 Nov 27 18:52	0° \mathbb{M}			3522 Jan 05 06:48	30° \mathcal{R} \mathbb{I}	
	3517 Jan 15 01:54	0° \mathcal{A}		direct	3522 Jan 29 17:07	26° \mathbb{I} 00'19	
	3517 Mar 05 19:43	0° \mathcal{C}			3522 Feb 25 06:51	0° \mathcal{E}	
desc. node	3517 Mar 21 19:43	9° \mathcal{C} 15'26			3522 May 04 14:43	0° Ω	
	3517 Apr 29 11:28	0° \approx			3522 Jun 26 20:35	0° \mathbb{M}	
retrograde	3517 Jul 06 20:10	20° \approx 50'46			3522 Aug 15 18:32	0° Ω	
opposition	3517 Aug 07 00:14	15° \approx 24'34	-6°-12'-21		3522 Oct 02 10:06	0° \mathbb{M}	
greatest brilliancy	3517 Aug 08 19:53	14° \approx 52'37	-2.6m	evening set	3522 Oct 19 17:07	11° \mathbb{M} 15'03	
min. Earth dist.	3517 Aug 13 09:46	13° \approx 32'47	0.40373 AU	max. Earth dist.	3522 Nov 08 08:52	24° \mathbb{M} 17'49	2.57484 AU
direct	3517 Sep 09 04:28	9° \approx 07'25		desc. node	3522 Nov 11 16:51	26° \mathbb{M} 32'17	
	3517 Nov 09 20:15	0° \mathcal{H}			3522 Nov 16 19:48	0° \mathcal{A}	
	3517 Dec 27 02:02	0° \mathcal{Y}					
asc. node	3518 Jan 24 10:40	19° \mathcal{Y} 35'35		conjunction	3522 Dec 05 23:40	13° \mathcal{A} 07'32	0°-13'-52
	3518 Feb 08 07:53	0° \mathcal{B}		minimum elong	3522 Dec 05 23:07	13° \mathcal{A} 06'35	0°13'52
	3518 Mar 23 10:20	0° \mathbb{I}		behind sun begin	3522 Dec 05 12:28	12° \mathcal{A} 48'08	
	3518 May 06 14:02	0° \mathcal{E}		behind sun end	3522 Dec 06 09:47	13° \mathcal{A} 25'02	
	3518 Jun 21 02:32	0° Ω			3522 Dec 30 00:20	0° \mathcal{C}	
	3518 Aug 06 17:59	0° \mathbb{M}		morning rise	3523 Jan 24 22:36	18° \mathcal{C} 43'21	
evening set	3518 Aug 07 02:24	0° \mathbb{M} 13'27			3523 Feb 09 05:30	0° \approx	
max. Earth dist.	3518 Sep 20 20:23	28° \mathbb{M} 41'13	2.67749 AU		3523 Mar 20 22:31	0° \mathcal{H}	
					3523 Apr 28 18:50	0° \mathcal{Y}	
conjunction	3518 Sep 22 10:00	29° \mathbb{M} 40'59	1°00'37		3523 Jun 06 14:07	0° \mathcal{B}	

	3523 Jul 16 09:28	0°♊			3528 Jul 22 00:00	0°♌		
	3523 Aug 27 16:01	0°♉			3528 Sep 14 18:15	0°♏		
asc. node	3523 Sep 16 07:46	12°♉57'37			3528 Oct 29 22:09	0°♐		
	3523 Oct 14 14:01	0°♏			3528 Dec 09 23:50	0°♑		
retrograde	3523 Dec 28 04:54	25°♏52'08			3529 Jan 17 21:46	0°♒		
min. Earth dist.	3524 Feb 01 18:33	17°♏39'34	0.62669 AU		3529 Feb 24 23:28	0°♓		
greatest brilliancy	3524 Feb 05 04:40	16°♏17'40	-1.4m		3529 Apr 04 06:44	0°♈		
opposition	3524 Feb 06 04:03	15°♏54'19	4°33'32	evening set	3529 Apr 06 21:24	2°♈01'16		
direct	3524 Mar 15 13:02	6°♏55'22		asc. node	3529 May 08 04:47	25°♈52'49		
	3524 May 30 00:22	0°♐			3529 May 13 16:59	0°♊		
	3524 Jul 24 19:01	0°♑						
	3524 Sep 12 06:59	0°♌		conjunction	3529 Jun 10 10:17	20°♊20'43	0°21'23	
desc. node	3524 Sep 28 15:33	10°♌27'43		minimum elong	3529 Jun 10 08:49	20°♊18'05	0°21'21	
	3524 Oct 28 03:40	0°♏			3529 Jun 23 21:52	0°♉		
evening set	3524 Nov 30 11:27	23°♏06'27		max. Earth dist.	3529 Jul 20 06:01	18°♉25'07	2.51824 AU	
	3524 Dec 10 02:59	0°♐		morning rise	3529 Aug 06 23:43	0°♏30'23		
max. Earth dist.	3524 Dec 15 03:42	3°♐37'47	2.45366 AU		3529 Aug 06 05:43	0°♏		
	3525 Jan 19 18:56	0°♑			3529 Sep 20 18:57	0°♐		
					3529 Nov 07 16:15	0°♑		
conjunction	3525 Jan 23 15:58	2°♑55'58	0°-57'-52		3529 Dec 28 22:38	0°♌		
minimum elong	3525 Jan 23 14:16	2°♑52'45	0°57'52		3530 Feb 28 15:49	0°♏		
	3525 Feb 27 20:15	0°♒		retrograde	3530 Apr 15 13:26	10°♏06'13		
morning rise	3525 Mar 27 15:07	21°♒46'18		desc. node	3530 May 21 11:36	2°♏26'55		
greatest brilliancy	3525 Apr 06 22:06	29°♒52'06	1.2m	opposition	3530 May 22 17:36	1°♏58'55	0°-3'-7	
	3525 Apr 07 02:07	0°♓		greatest brilliancy	3526 Nov 27 12:29	4°♐51'47	-15.4m	
	3525 May 15 09:08	0°♈			3530 May 28 00:22	30°♒♌		
	3525 Jun 23 14:46	0°♊		min. Earth dist.	3530 May 29 15:06	29°♌24'09	0.57972 AU	
asc. node	3525 Aug 03 07:48	29°♊43'46		direct	3530 Jul 02 05:37	22°♌18'48		
	3525 Aug 03 16:58	0°♉			3530 Aug 08 04:45	0°♏		
	3525 Sep 16 17:49	0°♏			3530 Oct 04 04:06	0°♐		
	3525 Nov 05 00:32	0°♐			3530 Nov 16 22:34	0°♑		
	3526 Jan 19 08:56	0°♑			3530 Dec 26 22:52	0°♒		
retrograde	3526 Jan 31 01:40	0°♑49'59			3531 Feb 03 17:12	0°♓		
	3526 Feb 11 06:30	30°♒♐			3531 Mar 14 15:42	0°♈		
opposition	3526 Mar 12 07:13	21°♐03'29	4°16'11	asc. node	3531 Mar 26 04:28	8°♈44'43		
greatest brilliancy	3526 Mar 12 04:03	21°♐06'38	-1.2m		3531 Apr 23 17:48	0°♊		
min. Earth dist.	3526 Mar 11 18:41	21°♐16'01	0.67660 AU		3531 Jun 04 14:09	0°♉		
direct	3526 Apr 21 22:11	11°♐19'16		evening set	3531 Jun 07 12:55	2°♉03'44		
	3526 Jun 27 00:45	0°♑			3531 Jul 18 09:47	0°♏		
desc. node	3526 Aug 16 14:04	26°♑53'07						
	3526 Aug 21 20:50	0°♌		conjunction	3531 Jul 31 03:20	8°♏28'47	1°02'15	
	3526 Oct 08 10:25	0°♏		minimum elong	3531 Jul 31 02:12	8°♏26'54	1°02'14	
	3526 Nov 20 18:53	0°♐		max. Earth dist.	3531 Aug 19 13:22	21°♏14'45	2.62154 AU	
	3526 Dec 31 07:48	0°♑			3531 Sep 02 00:55	0°♐		
evening set	3527 Jan 25 22:55	19°♑43'28		morning rise	3531 Sep 17 19:29	10°♐08'50		
	3527 Feb 08 02:20	0°♒			3531 Oct 19 02:01	0°♑		
	3527 Mar 18 02:07	0°♓			3531 Dec 06 06:44	0°♌		
					3532 Jan 25 01:09	0°♏		
conjunction	3527 Apr 02 17:44	12°♓21'52	0°-48'-33		3532 Mar 18 21:38	0°♐		
minimum elong	3527 Apr 02 21:07	12°♓28'30	0°48'32	desc. node	3532 Apr 07 11:19	9°♐33'31		
	3527 Apr 25 05:45	0°♈		retrograde	3532 Jun 08 10:03	26°♐47'04		
max. Earth dist.	3527 May 18 02:07	17°♈37'42	2.38416 AU	opposition	3532 Jul 11 12:58	20°♐29'00	-4°-29'-24	
	3527 Jun 03 10:04	0°♊		greatest brilliancy	3532 Jul 13 08:31	19°♐53'39	-2.3m	
morning rise	3527 Jun 12 05:53	6°♊35'34		min. Earth dist.	3532 Jul 19 21:16	17°♐47'18	0.45122 AU	
asc. node	3527 Jun 21 05:56	13°♊14'59		direct	3532 Aug 16 18:08	12°♐48'20		
	3527 Jul 14 08:39	0°♉			3532 Oct 10 21:27	0°♑		
	3527 Aug 26 15:20	0°♏			3532 Nov 27 17:37	0°♒		
	3527 Oct 11 21:17	0°♐			3533 Jan 08 15:44	0°♓		
	3527 Dec 01 18:20	0°♑		asc. node	3533 Feb 10 02:17	23°♓45'31		
	3528 Feb 07 22:45	0°♌			3533 Feb 18 15:31	0°♈		
retrograde	3528 Mar 06 02:32	3°♌58'09			3533 Apr 01 08:45	0°♊		
	3528 Mar 31 01:39	30°♒♑			3533 May 14 13:32	0°♉		
opposition	3528 Apr 14 10:54	24°♑48'05	2°45'03		3533 Jun 28 10:02	0°♏		
greatest brilliancy	3528 Apr 14 21:38	24°♑37'33	-1.3m	evening set	3533 Jul 22 14:17	15°♏46'39		
min. Earth dist.	3528 Apr 17 18:36	23°♑29'54	0.66047 AU		3533 Aug 13 15:42	0°♐		
direct	3528 May 25 22:08	14°♑45'51						
desc. node	3528 Jul 03 12:37	22°♑26'57		conjunction	3533 Sep 08 03:49	16°♐18'24	1°06'23	

minimum elong	3533 Sep 08 04:20	16° \mathbb{M} 19'14	1°06'23			3538 Sep 07 05:09	0° \mathfrak{D}	
max. Earth dist.	3533 Sep 11 21:48	18° \mathbb{M} 41'46	2.67260 AU	asc. node		3538 Oct 03 00:25	15° \mathfrak{D} 44'24	
	3533 Sep 29 16:10	0° $\underline{\mathfrak{A}}$				3538 Oct 31 02:35	0° \mathcal{O}	
morning rise	3533 Oct 22 23:31	14° $\underline{\mathfrak{A}}$ 48'59		retrograde		3538 Dec 13 14:13	10° \mathcal{O} 43'45	
	3533 Nov 15 20:01	0° \mathbb{M}		min. Earth dist.		3539 Jan 16 04:54	3° \mathcal{O} 11'47	0.58982 AU
	3534 Jan 01 17:56	0° \mathfrak{A}		greatest brilliancy		3539 Jan 20 19:44	1° \mathcal{O} 22'33	-1.6m
	3534 Feb 17 09:36	0° \mathfrak{C}		opposition		3539 Jan 22 01:14	0° \mathcal{O} 53'26	4°13'13
desc. node	3534 Feb 23 10:10	3° \mathfrak{C} 52'27				3539 Jan 24 07:53	30° \mathfrak{R} \mathfrak{D}	
	3534 Apr 05 05:19	0° \approx		direct		3539 Feb 28 03:46	22° \mathfrak{D} 21'30	
	3534 May 23 13:52	0° \mathfrak{H}				3539 Apr 07 21:37	0° \mathcal{O}	
	3534 Jul 20 09:02	0° \mathcal{Y}				3539 Jun 11 10:51	0° \mathbb{M}	
retrograde	3534 Aug 26 07:52	7° \mathcal{Y} 58'18				3539 Aug 03 00:28	0° $\underline{\mathfrak{A}}$	
min. Earth dist.	3534 Sep 24 10:51	3° \mathcal{Y} 10'58	0.37110 AU			3539 Sep 20 14:15	0° \mathbb{M}	
opposition	3534 Sep 25 14:11	2° \mathcal{Y} 52'46	-5°-51'-6	desc. node		3539 Oct 16 06:30	16° \mathbb{M} 39'40	
greatest brilliancy	3534 Sep 25 11:47	2° \mathcal{Y} 54'21	-2.9m			3539 Nov 05 05:11	0° \mathfrak{A}	
	3534 Oct 07 04:47	30° \mathfrak{R} \mathfrak{H}		evening set		3539 Nov 13 17:56	5° \mathfrak{A} 48'57	
direct	3534 Oct 25 02:59	27° \mathfrak{H} 59'13		max. Earth dist.		3539 Nov 28 20:42	16° \mathfrak{A} 16'47	2.50489 AU
	3534 Nov 11 17:40	0° \mathcal{Y}				3539 Dec 18 05:43	0° \mathfrak{C}	
asc. node	3534 Dec 29 01:30	19° \mathcal{Y} 21'56						
	3535 Jan 16 21:42	0° \mathfrak{B}		conjunction		3540 Jan 03 10:44	11° \mathfrak{C} 44'09	0°-43'-4
	3535 Mar 06 10:29	0° \mathbb{I}		minimum elong		3540 Jan 03 09:04	11° \mathfrak{C} 41'05	0°43'04
	3535 Apr 22 07:26	0° \mathfrak{D}				3540 Jan 28 02:06	0° \approx	
	3535 Jun 08 09:39	0° \mathcal{O}		morning rise		3540 Feb 29 05:13	24° \approx 28'47	
	3535 Jul 25 22:51	0° \mathbb{M}				3540 Mar 07 08:32	0° \mathfrak{H}	
evening set	3535 Aug 30 04:06	22° \mathbb{M} 11'23				3540 Apr 14 18:47	0° \mathcal{Y}	
	3535 Sep 11 12:33	0° $\underline{\mathfrak{A}}$				3540 May 23 05:00	0° \mathfrak{B}	
max. Earth dist.	3535 Oct 04 20:13	14° $\underline{\mathfrak{A}}$ 49'46	2.66866 AU			3540 Jul 01 13:24	0° \mathbb{I}	
						3540 Aug 11 21:20	0° \mathfrak{D}	
conjunction	3535 Oct 14 11:32	20° $\underline{\mathfrak{A}}$ 59'53	0°44'42	asc. node		3540 Aug 19 22:57	5° \mathfrak{D} 37'13	
minimum elong	3535 Oct 14 12:36	21° $\underline{\mathfrak{A}}$ 01'36	0°44'42			3540 Sep 25 16:52	0° \mathcal{O}	
	3535 Oct 28 11:06	0° \mathbb{M}				3540 Nov 17 09:13	0° \mathbb{M}	
morning rise	3535 Nov 27 18:14	19° \mathbb{M} 44'58		retrograde		3541 Jan 17 18:05	17° \mathbb{M} 55'06	
	3535 Dec 13 06:13	0° \mathfrak{A}		min. Earth dist.		3541 Feb 24 23:56	8° \mathbb{M} 49'36	0.66492 AU
desc. node	3536 Jan 11 08:36	19° \mathfrak{A} 32'50		opposition		3541 Feb 27 01:00	8° \mathbb{M} 00'28	4°32'44
	3536 Jan 26 16:11	0° \mathfrak{C}		greatest brilliancy		3541 Feb 26 13:58	8° \mathbb{M} 11'31	-1.3m
	3536 Mar 09 17:41	0° \approx				3541 Mar 23 16:27	30° \mathfrak{R} \mathcal{O}	
	3536 Apr 20 15:57	0° \mathfrak{H}		direct		3541 Apr 07 23:02	28° \mathcal{O} 30'33	
	3536 Jun 01 00:07	0° \mathcal{Y}				3541 Apr 24 04:46	0° \mathbb{M}	
	3536 Jul 13 00:57	0° \mathfrak{B}				3541 Jul 09 01:25	0° $\underline{\mathfrak{A}}$	
	3536 Aug 28 14:45	0° \mathbb{I}		desc. node		3541 Aug 30 08:03	0° \mathbb{M}	
retrograde	3536 Oct 30 03:55	21° \mathbb{I} 33'39				3541 Sep 02 04:56	1° \mathbb{M} 45'52	
asc. node	3536 Nov 15 01:43	19° \mathbb{I} 40'44				3541 Oct 16 00:46	0° \mathfrak{A}	
min. Earth dist.	3536 Nov 27 04:35	16° \mathbb{I} 07'50	0.46300 AU			3541 Nov 28 04:04	0° \mathfrak{C}	
opposition	3536 Dec 05 11:10	13° \mathbb{I} 13'02	1°10'18	evening set		3542 Jan 01 16:18	25° \mathfrak{C} 25'40	
greatest brilliancy	3536 Dec 04 20:41	13° \mathbb{I} 25'51	-2.3m			3542 Jan 07 17:29	0° \approx	
direct	3537 Jan 07 08:10	6° \mathbb{I} 26'54		max. Earth dist.		3542 Feb 03 23:55	20° \approx 57'18	2.37901 AU
	3537 Mar 21 16:12	0° \mathfrak{D}				3542 Feb 15 14:02	0° \mathfrak{H}	
	3537 May 15 08:19	0° \mathcal{O}						
	3537 Jul 05 00:13	0° \mathbb{M}		conjunction		3542 Mar 04 13:10	13° \mathfrak{H} 20'10	-1°-3'-15
	3537 Aug 22 23:11	0° $\underline{\mathfrak{A}}$		minimum elong		3542 Mar 04 14:31	13° \mathfrak{H} 22'49	1°03'16
evening set	3537 Oct 04 21:55	27° $\underline{\mathfrak{A}}$ 10'44				3542 Mar 25 15:27	0° \mathcal{Y}	
	3537 Oct 09 06:52	0° \mathbb{M}				3542 May 02 19:28	0° \mathfrak{B}	
max. Earth dist.	3537 Oct 28 09:24	12° \mathbb{M} 27'29	2.61113 AU	morning rise		3542 May 14 13:22	9° \mathfrak{B} 06'43	
						3542 Jun 10 22:54	0° \mathbb{I}	
conjunction	3537 Nov 19 23:11	27° \mathbb{M} 28'33	0°04'46	asc. node		3542 Jul 07 23:02	19° \mathbb{I} 58'50	
minimum elong	3537 Nov 19 23:21	27° \mathbb{M} 28'51	0°04'46			3542 Jul 21 20:46	0° \mathfrak{D}	
behind sun begin	3537 Nov 19 04:30	26° \mathbb{M} 57'09				3542 Sep 03 06:24	0° \mathcal{O}	
behind sun end	3537 Nov 20 18:13	28° \mathbb{M} 00'34				3542 Oct 20 04:25	0° \mathbb{M}	
	3537 Nov 23 17:02	0° \mathfrak{A}				3542 Dec 12 23:25	0° $\underline{\mathfrak{A}}$	
desc. node	3537 Nov 28 07:35	3° \mathfrak{A} 07'10		retrograde		3543 Feb 21 03:51	21° $\underline{\mathfrak{A}}$ 11'46	
morning rise	3538 Jan 06 06:22	0° \mathfrak{C} 05'50		opposition		3543 Apr 02 00:03	11° $\underline{\mathfrak{A}}$ 44'45	3°28'30
	3538 Jan 06 03:04	0° \mathfrak{C}		greatest brilliancy		3543 Apr 02 06:57	11° $\underline{\mathfrak{A}}$ 37'55	-1.2m
	3538 Feb 16 16:55	0° \approx		min. Earth dist.		3543 Apr 03 19:57	11° $\underline{\mathfrak{A}}$ 01'17	0.67469 AU
	3538 Mar 28 19:41	0° \mathfrak{H}		direct		3543 May 13 07:50	1° $\underline{\mathfrak{A}}$ 46'11	
	3538 May 07 01:38	0° \mathcal{Y}		desc. node		3543 Jul 21 04:11	22° $\underline{\mathfrak{A}}$ 10'50	
	3538 Jun 15 06:35	0° \mathfrak{B}				3543 Aug 05 09:53	0° \mathbb{M}	
	3538 Jul 25 15:15	0° \mathbb{I}				3543 Sep 24 21:43	0° \mathfrak{A}	

	3543 Nov 08 02:06	0°☾		conjunction	3548 Aug 24 08:41	2°☿28'38	1°08'21
	3543 Dec 18 20:32	0°≈		minimum elong	3548 Aug 24 08:40	2°☿28'36	1°08'21
	3544 Jan 26 15:48	0°✠		max. Earth dist.	3548 Sep 02 18:19	8°☿30'57	2.65908 AU
	3544 Mar 04 15:42	0°☿			3548 Oct 06 11:11	0°♄	
evening set	3544 Mar 09 10:34	3°☿46'56		morning rise	3548 Oct 09 05:57	1°♄45'53	
greatest brilliancy	3544 Mar 22 13:35	14°☿07'55	1.2m		3548 Nov 22 21:40	0°♍	
	3544 Apr 11 20:33	0°♄			3549 Jan 09 14:30	0°♂	
					3549 Feb 26 22:30	0°☾	
conjunction	3544 May 16 13:48	26°♂34'27	0°-5'-35	desc. node	3549 Mar 12 00:56	7°☾58'28	
minimum elong	3544 May 16 14:17	26°♂35'22	0°05'35		3549 Apr 18 10:48	0°≈	
behind sun begin	3544 May 15 11:54	25°♂45'42			3549 Jun 19 01:11	0°✠	
behind sun end	3544 May 17 16:41	27°♂24'58		retrograde	3549 Jul 24 15:21	6°✠59'10	
	3544 May 21 03:20	0°♈		opposition	3549 Aug 24 00:21	1°✠55'01	-6°-41'-57
asc. node	3544 May 24 21:05	2°♈47'40		greatest brilliancy	3549 Aug 25 08:10	1°✠33'12	-2.8m
	3544 Jul 01 04:21	0°♄		min. Earth dist.	3549 Aug 28 06:09	0°✠45'28	0.38436 AU
max. Earth dist.	3544 Jul 03 18:21	1°♄50'18	2.46605 AU		3549 Aug 31 02:37	30°♌	
morning rise	3544 Jul 18 09:12	12°♄08'00		direct	3549 Sep 24 08:11	26°≈22'24	
	3544 Aug 13 09:47	0°♌			3549 Oct 17 23:05	0°✠	
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	3544 Nov 15 16:22	0°♄		asc. node	3550 Jan 14 18:52	18°☿28'37	
	3545 Jan 08 16:48	0°♍			3550 Jan 31 23:51	0°♄	
retrograde	3545 Mar 29 17:09	25°♍29'41			3550 Mar 17 07:26	0°♈	
opposition	3545 May 06 22:21	16°♍53'29	1°12'47		3550 May 01 04:07	0°♄	
greatest brilliancy	3545 May 07 07:23	16°♍44'48	-1.5m		3550 Jun 16 03:03	0°♌	
min. Earth dist.	3545 May 12 12:05	14°♍45'18	0.61885 AU		3550 Aug 02 00:45	0°♍	
desc. node	3545 Jun 07 03:19	7°♍36'36		evening set	3550 Aug 15 15:34	8°♍38'51	
direct	3545 Jun 17 02:23	6°♍57'22			3550 Sep 18 07:21	0°♄	
	3545 Aug 27 02:28	0°♂		max. Earth dist.	3550 Sep 26 01:37	4°♄55'56	2.67664 AU
	3545 Oct 15 01:33	0°☾					
	3545 Nov 26 06:21	0°≈		conjunction	3550 Sep 30 11:34	7°♄44'31	0°55'38
	3546 Jan 04 15:33	0°✠		minimum elong	3550 Sep 30 12:35	7°♄46'09	0°55'37
	3546 Feb 12 00:26	0°☿			3550 Nov 04 06:25	0°♍	
	3546 Mar 22 14:41	0°♄		morning rise	3550 Nov 13 14:42	6°♍01'37	
asc. node	3546 Apr 11 19:43	15°♄23'55			3550 Dec 20 09:30	0°♂	
	3546 May 01 08:33	0°♈		desc. node	3551 Jan 27 23:46	25°♂38'28	
evening set	3546 May 16 20:13	11°♈21'16			3551 Feb 03 11:22	0°☾	
	3546 Jun 11 21:07	0°♄			3551 Mar 19 13:11	0°≈	
					3551 May 01 21:04	0°✠	
conjunction	3546 Jul 13 05:56	21°♄44'32	0°51'27		3551 Jun 14 06:23	0°☿	
minimum elong	3546 Jul 13 04:09	21°♄41'31	0°51'26		3551 Jul 30 11:14	0°♄	
	3546 Jul 25 10:33	0°♌		retrograde	3551 Oct 09 01:35	26°♄13'58	
max. Earth dist.	3546 Aug 09 01:25	9°♌46'06	2.58714 AU	min. Earth dist.	3551 Nov 04 12:56	21°♄33'39	0.41301 AU
morning rise	3546 Sep 02 15:14	25°♌54'07		greatest brilliancy	3551 Nov 11 12:17	19°♄21'40	-2.7m
	3546 Sep 08 23:02	0°♍		opposition	3551 Nov 12 00:36	19°♄11'53	-1°-20'-7
	3546 Oct 26 04:33	0°♄		asc. node	3551 Dec 02 17:21	14°♄04'32	
	3546 Dec 14 04:22	0°♍		direct	3551 Dec 12 23:54	13°♄22'20	
	3547 Feb 04 07:21	0°♂			3552 Feb 08 22:21	0°♈	
	3547 Apr 10 03:31	0°☾			3552 Apr 04 09:17	0°♄	
desc. node	3547 Apr 25 01:48	4°☾11'34			3552 May 24 15:34	0°♌	
retrograde	3547 May 16 07:58	6°☾43'12			3552 Jul 12 17:15	0°♍	
	3547 Jun 19 04:15	30°♌			3552 Aug 29 23:49	0°♄	
opposition	3547 Jun 20 08:53	29°♂35'04	-2°-35'-14	evening set	3552 Sep 20 12:41	13°♄36'19	
greatest brilliancy	3547 Jun 21 12:04	29°♂11'15	-2.0m		3552 Oct 16 02:22	0°♍	
min. Earth dist.	3547 Jun 28 18:31	26°♂39'13	0.50468 AU	max. Earth dist.	3552 Oct 18 09:14	1°♍28'51	2.63988 AU
direct	3547 Jul 28 20:24	20°♂49'55					
	3547 Sep 06 05:03	0°☾		conjunction	3552 Nov 04 22:23	12°♍55'54	0°21'55
	3547 Oct 29 13:02	0°≈		minimum elong	3552 Nov 04 23:05	12°♍57'02	0°21'55
	3547 Dec 11 01:02	0°✠			3552 Nov 30 14:48	0°♂	
	3548 Jan 20 01:17	0°☿		desc. node	3552 Dec 14 22:24	9°♂41'12	
asc. node	3548 Feb 27 19:50	29°☿12'18		morning rise	3552 Dec 20 12:44	13°♂30'28	
	3548 Feb 28 21:24	0°♄			3553 Jan 13 08:33	0°☾	
	3548 Apr 09 17:49	0°♈			3553 Feb 24 09:50	0°≈	
	3548 May 22 06:07	0°♄			3553 Apr 06 01:42	0°✠	
evening set	3548 Jul 05 23:28	0°♌15'13			3553 May 15 21:07	0°☿	
	3548 Jul 05 14:17	0°♌			3553 Jun 24 17:11	0°♄	
	3548 Aug 20 12:23	0°♍			3553 Aug 05 02:15	0°♈	
					3553 Sep 20 14:55	0°♄	

asc. node	3553 Oct 19 16:57	14° $\overline{5}$ 40'55			3558 Dec 26 12:06	0° \approx	
retrograde	3553 Nov 27 18:52	23° $\overline{5}$ 52'16			3559 Feb 03 06:59	0° H	
min. Earth dist.	3553 Dec 29 06:08	17° $\overline{5}$ 06'41	0.54442 AU	evening set	3559 Feb 09 22:22	5° H 13'20	
greatest brilliancy	3554 Jan 04 02:26	14° $\overline{5}$ 51'48	-1.9m		3559 Mar 13 06:30	0° Y	
opposition	3554 Jan 05 10:04	14° $\overline{5}$ 21'19	3°29'56				
direct	3554 Feb 10 00:27	6° $\overline{5}$ 23'38		conjunction	3559 Apr 19 09:45	29° Y 12'54	0°-34'-30
	3554 Apr 26 08:07	0° Ω		minimum elong	3559 Apr 19 12:46	29° Y 18'47	0°34'29
	3554 Jun 21 01:09	0° M			3559 Apr 20 09:56	0° B	
	3554 Aug 10 17:56	0° \underline{A}			3559 May 29 14:04	0° II	
	3554 Sep 27 16:48	0° M		max. Earth dist.	3559 Jun 10 05:12	8° II 40'43	2.41111 AU
evening set	3554 Oct 28 12:24	20° M 08'55		asc. node	3559 Jun 11 13:54	9° II 41'16	
desc. node	3554 Nov 01 21:49	23° M 04'48		morning rise	3559 Jun 26 17:31	20° II 47'45	
	3554 Nov 12 04:30	0° Z			3559 Jul 09 12:05	0° $\overline{5}$	
max. Earth dist.	3554 Nov 15 05:20	2° Z 03'36	2.55140 AU		3559 Aug 21 16:38	0° Ω	
					3559 Oct 06 14:51	0° M	
conjunction	3554 Dec 15 18:52	23° Z 14'02	0°-24'-52		3559 Nov 25 09:04	0° \underline{A}	
minimum elong	3554 Dec 15 17:52	23° Z 12'16	0°24'51		3560 Jan 24 00:29	0° M	
	3554 Dec 25 07:41	0° $\overline{5}$		retrograde	3560 Mar 14 09:35	11° M 56'40	
	3555 Feb 04 09:50	0° \approx		opposition	3560 Apr 22 10:03	2° M 57'21	2°14'30
morning rise	3555 Feb 05 18:39	1° \approx 01'14		greatest brilliancy	3560 Apr 22 21:25	2° M 46'17	-1.3m
	3555 Mar 15 22:58	0° H		min. Earth dist.	3560 Apr 26 13:21	1° M 20'40	0.64836 AU
	3555 Apr 23 15:22	0° Y			3560 Apr 30 01:51	30° R \underline{A}	
	3555 Jun 01 06:50	0° B		direct	3560 Jun 02 21:02	22° \underline{A} 55'27	
	3555 Jul 10 20:49	0° II		desc. node	3560 Jun 23 17:47	25° \underline{A} 25'00	
	3555 Aug 21 15:47	0° $\overline{5}$			3560 Jul 09 11:14	0° M	
asc. node	3555 Sep 06 16:05	10° $\overline{5}$ 50'38			3560 Sep 08 04:48	0° Z	
	3555 Oct 06 22:39	0° Ω			3560 Oct 24 08:51	0° $\overline{5}$	
	3555 Dec 08 19:16	0° M			3560 Dec 04 18:52	0° \approx	
retrograde	3556 Jan 05 04:23	4° M 25'23			3561 Jan 12 20:22	0° H	
	3556 Jan 30 17:07	30° R Ω			3561 Feb 20 00:08	0° Y	
min. Earth dist.	3556 Feb 10 18:09	25° Ω 52'59	0.64307 AU		3561 Mar 30 09:16	0° B	
opposition	3556 Feb 14 07:57	24° Ω 27'14	4°37'24	evening set	3561 Apr 22 01:39	17° B 22'04	
greatest brilliancy	3556 Feb 13 12:46	24° Ω 46'24	-1.4m	asc. node	3561 Apr 28 13:25	22° B 16'07	
direct	3556 Mar 24 07:49	15° Ω 15'58			3561 May 08 21:17	0° II	
	3556 May 20 16:47	0° M			3561 Jun 19 03:38	0° $\overline{5}$	
	3556 Jul 18 21:30	0° \underline{A}					
	3556 Sep 07 05:33	0° M		conjunction	3561 Jun 23 01:10	2° $\overline{5}$ 45'29	0°34'12
desc. node	3556 Sep 18 20:53	7° M 21'00		minimum elong	3561 Jun 22 23:16	2° $\overline{5}$ 42'09	0°34'10
	3556 Oct 23 09:14	0° Z		max. Earth dist.	3561 Jul 28 01:13	26° $\overline{5}$ 59'01	2.54455 AU
	3556 Dec 05 10:13	0° $\overline{5}$			3561 Aug 01 12:09	0° Ω	
evening set	3556 Dec 11 09:05	4° $\overline{5}$ 17'49		morning rise	3561 Aug 17 03:11	10° Ω 27'56	
max. Earth dist.	3556 Dec 27 13:30	16° $\overline{5}$ 09'19	2.42474 AU		3561 Sep 15 23:29	0° M	
	3557 Jan 15 01:32	0° \approx			3561 Nov 02 12:48	0° \underline{A}	
					3561 Dec 22 17:38	0° M	
conjunction	3557 Feb 06 01:31	16° \approx 48'54	-1°-3'-9		3562 Feb 17 05:29	0° Z	
minimum elong	3557 Feb 06 00:26	16° \approx 46'49	1°03'10	retrograde	3562 Apr 25 22:21	19° Z 30'02	
	3557 Feb 23 01:02	0° H		desc. node	3562 May 11 16:53	17° Z 56'08	
	3557 Apr 02 04:51	0° Y		opposition	3562 Jun 01 10:58	11° Z 41'23	0°-54'-5
morning rise	3557 Apr 13 16:18	9° Y 02'40		greatest brilliancy	3562 Jun 01 19:58	11° Z 33'06	-1.8m
	3557 May 10 10:09	0° B		min. Earth dist.	3562 Jun 09 00:29	8° Z 54'59	0.55478 AU
	3557 Jun 18 13:58	0° II		direct	3562 Jul 11 10:05	2° Z 15'39	
asc. node	3557 Jul 24 14:10	26° II 27'46			3562 Sep 25 23:54	0° $\overline{5}$	
	3557 Jul 29 13:02	0° $\overline{5}$			3562 Nov 10 12:50	0° \approx	
	3557 Sep 11 05:40	0° Ω			3562 Dec 21 03:55	0° H	
	3557 Oct 29 07:39	0° M			3563 Jan 29 05:57	0° Y	
	3557 Dec 28 19:35	0° \underline{A}			3563 Mar 09 10:11	0° B	
retrograde	3558 Feb 07 16:31	8° \underline{A} 35'26		asc. node	3563 Mar 16 11:53	5° B 20'33	
	3558 Mar 17 02:53	30° R M			3563 Apr 18 17:10	0° II	
opposition	3558 Mar 19 20:20	28° M 54'57	4°01'31		3563 May 30 17:42	0° $\overline{5}$	
greatest brilliancy	3558 Mar 19 21:11	28° M 54'07	-1.2m	evening set	3563 Jun 18 18:15	13° $\overline{5}$ 08'36	
min. Earth dist.	3558 Mar 20 03:53	28° M 47'27	0.67887 AU		3563 Jul 13 16:38	0° Ω	
direct	3558 Apr 29 19:12	19° M 04'35					
	3558 Jun 16 18:17	0° \underline{A}		conjunction	3563 Aug 09 15:23	17° Ω 48'53	1°05'55
desc. node	3558 Aug 06 19:04	24° \underline{A} 52'59		minimum elong	3563 Aug 09 14:40	17° Ω 47'43	1°05'55
	3558 Aug 15 19:13	0° M		max. Earth dist.	3563 Aug 25 07:22	28° Ω 00'44	2.63717 AU
	3558 Oct 03 05:38	0° Z			3563 Aug 28 09:07	0° M	
	3558 Nov 15 20:52	0° $\overline{5}$		morning rise	3563 Sep 26 03:34	18° M 27'13	


































































































































	3563 Oct 14 08:15	0°♄		greatest brilliancy	3568 Dec 16 12:31	26°♄01'16	-2.1m
	3563 Dec 01 04:45	0°♌		opposition	3568 Dec 17 13:34	25°♄38'12	2°13'55
	3564 Jan 19 00:59	0°♊		direct	3569 Jan 20 10:31	18°♄23'39	
	3564 Mar 10 04:16	0°♈			3569 Mar 09 13:15	0°♄	
desc. node	3564 Mar 28 15:28	10°♈06'35			3569 May 08 14:56	0°♌	
	3564 May 09 14:46	0°♍			3569 Jun 29 15:01	0°♎	
retrograde	3564 Jun 23 20:49	10°♍14'20			3569 Aug 18 02:47	0°♄	
opposition	3564 Jul 25 20:35	4°♍25'26	-5°-31'-58		3569 Oct 04 15:41	0°♌	
greatest brilliancy	3564 Jul 27 19:25	3°♍49'22	-2.5m	evening set	3569 Oct 13 06:59	5°♌35'41	
min. Earth dist.	3564 Aug 02 09:35	2°♍06'50	0.42367 AU	max. Earth dist.	3569 Nov 03 12:47	19°♌33'31	2.59209 AU
	3564 Aug 10 02:24	30°♌♈		desc. node	3569 Nov 18 12:55	29°♌36'46	
direct	3564 Aug 29 11:21	27°♈29'20			3569 Nov 19 02:40	0°♊	
	3564 Sep 17 16:48	0°♍					
	3564 Nov 18 05:25	0°♋		conjunction	3569 Nov 28 22:17	6°♊40'16	0°-5'-57
	3565 Jan 01 08:51	0°♐		minimum elong	3569 Nov 28 22:04	6°♊39'54	0°05'57
asc. node	3565 Jan 31 10:42	21°♐27'03		behind sun begin	3569 Nov 28 03:17	6°♊07'51	
	3565 Feb 12 09:23	0°♏		behind sun end	3569 Nov 29 16:51	7°♊11'59	
	3565 Mar 26 18:11	0°♄			3570 Jan 01 10:41	0°♈	
	3565 May 09 09:32	0°♄		morning rise	3570 Jan 16 13:24	10°♈48'02	
	3565 Jun 23 13:27	0°♌			3570 Feb 11 20:33	0°♍	
evening set	3565 Jul 31 13:46	24°♌36'34			3570 Mar 23 18:22	0°♋	
	3565 Aug 08 23:40	0°♎			3570 May 01 18:44	0°♐	
					3570 Jun 09 17:30	0°♏	
conjunction	3565 Sep 16 09:08	24°♎28'31	1°03'26		3570 Jul 19 16:41	0°♄	
minimum elong	3565 Sep 16 09:55	24°♎29'44	1°03'25		3570 Aug 31 07:55	0°♄	
max. Earth dist.	3565 Sep 17 02:47	24°♎56'33	2.67638 AU	asc. node	3570 Sep 23 07:49	14°♄47'59	
	3565 Sep 25 01:38	0°♄			3570 Oct 19 18:49	0°♌	
morning rise	3565 Oct 30 20:01	22°♄46'36		retrograde	3570 Dec 22 01:48	20°♌02'21	
	3565 Nov 11 03:14	0°♌		min. Earth dist.	3571 Jan 25 19:13	12°♌07'33	0.61145 AU
	3565 Dec 27 17:16	0°♊		opposition	3571 Jan 30 20:58	10°♌06'44	4°27'41
	3566 Feb 11 16:54	0°♈		greatest brilliancy	3571 Jan 29 18:27	10°♌33'04	-1.5m
desc. node	3566 Feb 13 14:48	1°♈15'19		direct	3571 Mar 09 17:36	1°♌18'59	
	3566 Mar 29 06:58	0°♍			3571 Jun 04 06:41	0°♎	
	3566 May 14 02:31	0°♋			3571 Jul 28 13:43	0°♄	
	3566 Jul 01 13:23	0°♐			3571 Sep 15 16:58	0°♌	
retrograde	3566 Sep 12 08:54	26°♐24'04		desc. node	3571 Oct 06 11:28	13°♌21'30	
min. Earth dist.	3566 Oct 09 15:12	21°♐56'15	0.37846 AU		3571 Oct 31 12:28	0°♊	
opposition	3566 Oct 13 18:14	20°♐47'06	-4°-24'-7	evening set	3571 Nov 23 14:34	15°♊52'16	
greatest brilliancy	3566 Oct 13 01:55	20°♐58'30	-2.9m	max. Earth dist.	3571 Dec 08 00:55	26°♊02'54	2.47701 AU
direct	3566 Nov 12 06:44	15°♐44'57			3571 Dec 13 13:34	0°♈	
asc. node	3566 Dec 19 10:16	23°♐43'16					
	3567 Jan 03 00:57	0°♏		conjunction	3572 Jan 15 01:57	23°♈48'00	0°-52'-12
	3567 Feb 26 11:33	0°♄		minimum elong	3572 Jan 15 00:07	23°♈44'36	0°52'12
	3567 Apr 16 04:03	0°♄			3572 Jan 23 08:33	0°♍	
	3567 Jun 03 02:45	0°♌			3572 Mar 02 12:50	0°♋	
	3567 Jul 21 02:35	0°♎		morning rise	3572 Mar 15 03:38	9°♋50'03	
	3567 Sep 06 21:26	0°♄			3572 Apr 09 20:44	0°♐	
evening set	3567 Sep 07 07:33	0°♄15'58			3572 May 18 04:45	0°♏	
max. Earth dist.	3567 Oct 10 02:16	21°♄07'11	2.66073 AU	greatest brilliancy	3572 May 26 02:12	6°♏06'48	1.2m
					3572 Jun 26 10:32	0°♄	
conjunction	3567 Oct 22 12:36	29°♄07'07	0°37'03		3572 Aug 06 13:09	0°♄	
minimum elong	3567 Oct 22 13:36	29°♄08'43	0°37'02	asc. node	3572 Aug 10 07:58	2°♄40'05	
	3567 Oct 23 21:20	0°♌			3572 Sep 19 18:30	0°♌	
morning rise	3567 Dec 06 02:44	28°♌21'15			3572 Nov 08 23:58	0°♎	
	3567 Dec 08 13:59	0°♊		retrograde	3573 Jan 25 09:39	25°♎51'57	
desc. node	3568 Jan 01 14:06	16°♊10'36		min. Earth dist.	3573 Mar 05 11:52	16°♎30'20	0.67267 AU
	3568 Jan 21 17:49	0°♈		opposition	3573 Mar 06 16:54	16°♎01'20	4°24'25
	3568 Mar 04 09:38	0°♍		greatest brilliancy	3573 Mar 06 10:18	16°♎07'55	-1.2m
	3568 Apr 14 19:08	0°♋		direct	3573 Apr 16 01:26	6°♎23'00	
	3568 May 25 10:33	0°♐			3573 Jul 01 14:01	0°♄	
	3568 Jul 05 09:05	0°♏		desc. node	3573 Aug 23 10:00	29°♄10'08	
	3568 Aug 17 23:39	0°♄			3573 Aug 24 19:12	0°♌	
	3568 Oct 15 03:19	0°♄			3573 Oct 11 01:07	0°♊	
asc. node	3568 Nov 05 08:24	4°♄20'46			3573 Nov 23 08:40	0°♈	
retrograde	3568 Nov 10 05:22	4°♄31'16			3574 Jan 02 22:53	0°♍	
	3568 Dec 05 10:31	30°♌♄		evening set	3574 Jan 14 23:35	9°♍10'57	
min. Earth dist.	3568 Dec 09 11:29	28°♄36'21	0.49293 AU		3574 Feb 10 18:53	0°♋	

conjunction	3574 Mar 20 18:21	29° X 58'03	0°-56'-44		3578 Dec 08 19:47	0° M	
minimum elong	3574 Mar 20 21:11	0° Y 03'38	0°56'44		3579 Jan 28 09:59	0° X	
	3574 Mar 20 19:21	0° Y			3579 Mar 26 05:27	0° Z	
max. Earth dist.	3574 Apr 06 14:50	13° Y 16'35	2.36985 AU	desc. node	3579 Apr 15 07:08	8° Z 31'40	
	3574 Apr 27 22:41	0° X		retrograde	3579 May 29 10:39	18° Z 08'11	
morning rise	3574 May 31 04:10	25° X 32'58		opposition	3579 Jul 02 10:52	11° Z 26'56	-3°-39'-32
	3574 Jun 06 01:43	0° II		greatest brilliancy	3579 Jul 04 00:29	10° Z 55'15	-2.2m
asc. node	3574 Jun 28 06:30	16° II 29'11		min. Earth dist.	3579 Jul 10 23:39	8° Z 35'03	0.47492 AU
	3574 Jul 16 22:27	0° S		direct	3579 Aug 08 19:22	3° Z 14'18	
	3574 Aug 29 04:32	0° Q			3579 Oct 20 01:30	0° \approx	
	3574 Oct 14 14:10	0° P			3579 Dec 03 20:30	0° X	
	3574 Dec 05 07:51	0° A			3580 Jan 13 18:35	0° Y	
retrograde	3575 Mar 01 01:39	28° A 58'44		asc. node	3580 Feb 18 03:03	26° Y 16'56	
opposition	3575 Apr 09 16:20	19° A 40'36	3°04'15		3580 Feb 23 03:49	0° X	
greatest brilliancy	3575 Apr 10 01:36	19° A 31'28	-1.3m		3580 Apr 04 10:07	0° II	
min. Earth dist.	3575 Apr 12 08:00	18° A 37'56	0.66810 AU		3580 May 17 05:50	0° S	
direct	3575 May 21 03:21	9° A 39'31			3580 Jun 30 19:35	0° Q	
desc. node	3575 Jul 11 08:45	22° A 11'43		evening set	3580 Jul 15 14:51	9° Q 44'04	
	3575 Jul 28 08:26	0° M			3580 Aug 15 20:49	0° P	
	3575 Sep 19 02:03	0° X					
	3575 Nov 02 20:49	0° Z		conjunction	3580 Sep 01 21:42	10° P 55'38	1°07'41
	3575 Dec 13 20:24	0° \approx		minimum elong	3580 Sep 01 22:01	10° P 56'09	1°07'41
	3576 Jan 21 17:44	0° X		max. Earth dist.	3580 Sep 08 02:04	14° P 52'41	2.66763 AU
greatest brilliancy	3576 Jan 24 20:49	2° X 27'17	1.2m		3580 Oct 01 20:01	0° A	
	3576 Feb 28 18:27	0° Y		morning rise	3580 Oct 17 03:16	9° A 43'01	
evening set	3576 Mar 25 14:29	20° Y 20'04			3580 Nov 18 02:33	0° M	
	3576 Apr 07 00:01	0° X			3581 Jan 04 08:10	0° X	
asc. node	3576 May 15 05:00	29° X 10'06			3581 Feb 20 15:44	0° Z	
	3576 May 16 07:40	0° II		desc. node	3581 Mar 02 06:08	6° Z 03'04	
					3581 Apr 09 18:45	0° \approx	
conjunction	3576 May 31 00:48	10° II 55'00	0°10'27		3581 May 31 09:07	0° X	
minimum elong	3576 May 30 23:58	10° II 53'30	0°10'26	retrograde	3581 Aug 12 04:51	24° X 28'36	
behind sun begin	3576 May 30 03:35	10° II 15'59		opposition	3581 Sep 11 02:56	19° X 32'31	-6°-31'-29
behind sun end	3576 May 31 20:22	11° II 30'58		greatest brilliancy	3581 Sep 11 16:36	19° X 23'29	-2.9m
	3576 Jun 26 09:20	0° S		min. Earth dist.	3581 Sep 12 13:24	19° X 09'45	0.37282 AU
max. Earth dist.	3576 Jul 13 17:36	12° S 13'36	2.49549 AU	direct	3581 Oct 11 03:43	14° X 30'18	
morning rise	3576 Jul 29 20:08	23° S 21'16			3581 Dec 03 01:26	0° Y	
	3576 Aug 08 14:38	0° Q		asc. node	3582 Jan 05 01:32	18° Y 32'46	
	3576 Sep 23 03:17	0° P			3582 Jan 23 11:31	0° X	
	3576 Nov 10 05:35	0° A			3582 Mar 10 16:26	0° II	
	3577 Jan 01 09:10	0° M			3582 Apr 25 12:16	0° S	
	3577 Mar 11 01:01	0° X			3582 Jun 11 00:46	0° Q	
retrograde	3577 Apr 08 01:54	4° X 10'30			3582 Jul 28 06:12	0° P	
	3577 May 03 22:38	30° R M		evening set	3582 Aug 24 00:33	16° P 54'58	
opposition	3577 May 15 18:43	25° M 49'26	0°30'28		3582 Sep 13 16:36	0° A	
greatest brilliancy	3577 May 15 23:18	25° M 45'06	-1.6m	max. Earth dist.	3582 Oct 01 05:48	11° A 09'13	2.67335 AU
min. Earth dist.	3577 May 22 02:42	23° M 25'40	0.59830 AU				
desc. node	3577 May 28 07:39	21° M 12'08		conjunction	3582 Oct 08 11:55	15° A 46'57	0°49'36
direct	3577 Jun 25 15:43	16° M 00'51		minimum elong	3582 Oct 08 12:59	15° A 48'40	0°49'35
	3577 Aug 16 21:39	0° X			3582 Oct 30 15:42	0° M	
	3577 Oct 08 10:46	0° Z		morning rise	3582 Nov 21 15:25	14° M 15'28	
	3577 Nov 20 11:58	0° \approx			3582 Dec 15 14:42	0° X	
	3577 Dec 30 05:47	0° X		desc. node	3583 Jan 18 04:49	22° X 27'02	
	3578 Feb 06 19:32	0° Y			3583 Jan 29 08:05	0° Z	
	3578 Mar 17 13:33	0° X			3583 Mar 13 20:06	0° \approx	
asc. node	3578 Apr 02 04:54	11° X 53'50			3583 Apr 25 08:07	0° X	
	3578 Apr 26 10:49	0° II			3583 Jun 06 09:58	0° Y	
evening set	3578 May 29 11:00	23° II 53'44			3583 Jul 19 17:02	0° X	
	3578 Jun 07 02:10	0° S			3583 Sep 08 18:18	0° II	
	3578 Jul 20 17:42	0° Q		retrograde	3583 Oct 22 00:31	11° II 31'05	
conjunction	3578 Jul 23 15:43	1° Q 57'30	0°58'23	min. Earth dist.	3583 Nov 18 05:37	6° II 27'12	0.43949 AU
minimum elong	3578 Jul 23 14:17	1° Q 55'05	0°58'23	asc. node	3583 Nov 23 01:54	4° II 49'43	
max. Earth dist.	3578 Aug 15 08:25	17° Q 01'00	2.60713 AU	opposition	3583 Nov 26 08:39	3° II 42'37	0°12'00
	3578 Sep 04 06:19	0° P		greatest brilliancy	3584 Jan 07 02:29	27° X 58'11	-2.8m
morning rise	3578 Sep 11 10:35	4° P 37'54			3583 Dec 08 11:12	30° R X	
	3578 Oct 21 08:17	0° A		direct	3583 Dec 28 09:01	27° X 21'23	
					3584 Jan 18 04:41	0° II	

	3584 Mar 27 07:08	0°☿			3589 Feb 18 06:29	0°♄	
	3584 May 18 16:27	0°♂					
	3584 Jul 07 14:02	0°♊		conjunction	3589 Feb 20 13:27	1°♄47'28	-1°-4'-55
	3584 Aug 25 05:48	0°♋		minimum elong	3589 Feb 20 13:35	1°♄47'44	1°04'55
evening set	3584 Sep 28 17:33	21°♋47'36			3589 Mar 28 09:05	0°♊	
	3584 Oct 11 11:58	0°♌		morning rise	3589 May 01 02:11	26°♊31'16	
max. Earth dist.	3584 Oct 24 01:24	8°♌09'36	2.62502 AU		3589 May 05 13:11	0°♋	
					3589 Jun 13 15:50	0°♌	
conjunction	3584 Nov 13 10:06	21°♌34'49	0°12'10	asc. node	3589 Jul 14 23:14	23°♌07'38	
minimum elong	3584 Nov 13 10:31	21°♌35'30	0°12'09		3589 Jul 24 12:35	0°☿	
behind sun begin	3584 Nov 12 21:40	21°♌14'09			3589 Sep 05 22:56	0°♂	
behind sun end	3584 Nov 13 23:21	21°♌56'51			3589 Oct 23 04:28	0°♊	
	3584 Nov 25 23:59	0°♋			3589 Dec 17 18:43	0°♋	
desc. node	3584 Dec 05 03:41	6°♋11'27		retrograde	3590 Feb 15 08:45	16°♋17'52	
morning rise	3584 Dec 29 20:33	23°♋10'59		opposition	3590 Mar 27 09:21	6°♋44'25	3°43'22
	3585 Jan 08 14:22	0°♌		greatest brilliancy	3590 Mar 27 13:46	6°♋40'02	-1.2m
	3585 Feb 19 09:51	0°♍		min. Earth dist.	3590 Mar 28 13:10	6°♋16'50	0.67781 AU
	3585 Mar 31 18:48	0°♄			3590 Apr 15 05:53	30°♊♊	
	3585 May 10 06:23	0°♊		direct	3590 May 07 14:21	26°♊49'00	
	3585 Jun 18 16:52	0°♋			3590 May 31 17:46	0°♋	
	3585 Jul 29 09:18	0°♌		desc. node	3590 Jul 28 00:01	23°♋24'22	
	3585 Sep 11 19:11	0°☿			3590 Aug 09 05:54	0°♌	
asc. node	3585 Oct 10 01:14	16°☿18'19			3590 Sep 27 20:17	0°♋	
	3585 Nov 11 08:31	0°♂			3590 Nov 10 20:17	0°♌	
retrograde	3585 Dec 06 23:17	4°♂10'25			3590 Dec 21 14:17	0°♍	
	3585 Dec 31 06:37	30°♊☿			3591 Jan 29 10:03	0°♄	
min. Earth dist.	3586 Jan 08 15:27	26°☿58'54	0.57046 AU	evening set	3591 Feb 25 20:20	21°♄38'25	
greatest brilliancy	3586 Jan 13 19:42	24°☿57'42	-1.7m		3591 Mar 08 09:50	0°♊	
opposition	3586 Jan 15 03:00	24°☿27'06	3°58'32		3591 Apr 15 13:34	0°♋	
direct	3586 Feb 20 14:39	16°☿09'30					
	3586 Apr 16 02:14	0°♂		conjunction	3591 May 05 15:41	15°♋30'37	0°-18'-11
	3586 Jun 14 20:48	0°♊		minimum elong	3591 May 05 17:22	15°♋33'49	0°18'12
	3586 Aug 05 14:19	0°♋			3591 May 24 18:21	0°♌	
	3586 Sep 22 22:33	0°♌		asc. node	3591 Jun 01 21:48	6°♌05'06	
desc. node	3586 Oct 23 02:26	19°♌38'38		max. Earth dist.	3591 Jun 25 16:55	23°♌32'13	2.44151 AU
evening set	3586 Nov 06 14:57	29°♌22'18			3591 Jul 04 16:42	0°☿	
	3586 Nov 07 13:15	0°♋		morning rise	3591 Jul 09 23:32	3°☿45'54	
max. Earth dist.	3586 Nov 22 16:21	10°♋20'19	2.52648 AU		3591 Aug 16 20:06	0°♂	
	3586 Dec 20 16:13	0°♌			3591 Oct 01 12:42	0°♊	
					3591 Nov 19 11:34	0°♋	
conjunction	3586 Dec 26 02:27	3°♌53'28	0°-35'-34		3592 Jan 14 03:32	0°♌	
minimum elong	3586 Dec 26 01:02	3°♌50'55	0°35'33	retrograde	3592 Mar 22 23:12	20°♌04'18	
	3587 Jan 30 16:02	0°♍		opposition	3592 Apr 30 14:16	11°♌17'04	1°40'02
morning rise	3587 Feb 18 12:45	14°♍14'15		greatest brilliancy	3592 May 01 00:50	11°♌06'52	-1.4m
	3587 Mar 11 02:02	0°♄		min. Earth dist.	3592 May 05 13:04	9°♌22'24	0.63329 AU
	3587 Apr 18 15:00	0°♊		direct	3592 Jun 10 23:03	1°♌17'25	
	3587 May 27 02:56	0°♋		desc. node	3592 Jun 13 23:21	1°♌20'49	
	3587 Jul 05 12:39	0°♌			3592 Aug 31 21:46	0°♋	
	3587 Aug 15 22:56	0°☿			3592 Oct 18 13:33	0°♌	
asc. node	3587 Aug 27 23:30	8°☿18'03			3592 Nov 29 10:24	0°♍	
	3587 Sep 30 04:19	0°♂			3593 Jan 07 16:31	0°♄	
	3587 Nov 24 05:44	0°♊			3593 Feb 14 22:49	0°♊	
retrograde	3588 Jan 13 00:11	12°♊42'58			3593 Mar 25 09:56	0°♋	
min. Earth dist.	3588 Feb 19 13:17	3°♊51'44	0.65641 AU	asc. node	3593 Apr 18 20:00	18°♋38'26	
opposition	3588 Feb 22 06:48	2°♊46'12	4°36'24		3593 May 04 00:07	0°♌	
greatest brilliancy	3588 Feb 21 16:08	3°♊00'52	-1.3m	evening set	3593 May 06 11:45	1°♌50'33	
	3588 Feb 29 08:57	30°♊♌			3593 Jun 14 08:32	0°☿	
direct	3588 Apr 01 20:01	23°♌24'02					
	3588 May 07 22:22	0°♊		conjunction	3593 Jul 04 20:29	14°☿20'42	0°44'58
	3588 Jul 12 13:45	0°♋		minimum elong	3593 Jul 04 18:33	14°☿17'22	0°44'56
	3588 Sep 02 00:25	0°♌			3593 Jul 27 18:26	0°♂	
desc. node	3588 Sep 09 00:57	4°♌22'06		max. Earth dist.	3593 Aug 04 05:03	5°♌00'10	2.56918 AU
	3588 Oct 18 12:46	0°♋		morning rise	3593 Aug 26 17:52	19°♌55'54	
	3588 Nov 30 16:32	0°♌			3593 Sep 11 05:01	0°♊	
evening set	3588 Dec 23 02:19	16°♌20'52			3593 Oct 28 12:33	0°♋	
	3589 Jan 10 07:52	0°♍			3593 Dec 16 22:16	0°♌	
max. Earth dist.	3589 Jan 13 18:48	2°♍37'09	2.39761 AU		3594 Feb 08 11:00	0°♋	

desc. node	3594 May 01 21:50	29°♏18'30	evening set	3599 Sep 15 11:17	8°♌22'41	
retrograde	3594 May 07 02:32	29°♏28'14	max. Earth dist.	3599 Oct 15 12:11	27°♌33'57	2.65019 AU
opposition	3594 Jun 11 20:41	22°♏00'53 -1°-50'-10		3599 Oct 19 06:42	0°♌	
greatest brilliancy	3594 Jun 12 15:49	21°♏43'44 -1.9m				
min. Earth dist.	3594 Jun 19 23:30	19°♏06'45 0.52780 AU	conjunction	3599 Oct 30 17:21	7°♌25'37 0°28'30	
direct	3594 Jul 21 02:55	12°♏54'55	minimum elong	3599 Oct 30 18:12	7°♌26'59 0°28'29	
	3594 Sep 15 16:19	0°♏		3599 Dec 03 21:43	0°♏	
	3594 Nov 03 11:44	0°♏	morning rise	3599 Dec 14 19:01	7°♏19'23	
	3594 Dec 15 01:01	0°♏	desc. node	3599 Dec 22 18:27	12°♏43'54	
	3595 Jan 23 14:03	0°♏		3600 Jan 16 20:47	0°♏	
	3595 Mar 04 01:31	0°♏		3600 Feb 28 05:00	0°♏	
asc. node	3595 Mar 06 20:00	2°♏04'59		3600 Apr 09 04:51	0°♏	
	3595 Apr 13 14:24	0°♏		3600 May 19 08:28	0°♏	
	3595 May 25 19:47	0°♏		3600 Jun 28 13:48	0°♏	
evening set	3595 Jun 29 09:06	23°♏36'19		3600 Aug 09 15:16	0°♏	
	3595 Jul 08 22:27	0°♏		3600 Sep 27 15:13	0°♏	
			asc. node	3600 Oct 26 17:08	12°♏16'47	
conjunction	3595 Aug 18 18:36	26°♏48'39 1°07'54	retrograde	3600 Nov 20 11:20	16°♏19'36	
minimum elong	3595 Aug 18 18:18	26°♏48'10 1°07'54	min. Earth dist.	3600 Dec 20 22:38	9°♏56'49 0.52188 AU	
	3595 Aug 23 16:55	0°♏	greatest brilliancy	3600 Dec 27 08:20	7°♏31'45 -2.0m	
max. Earth dist.	3595 Aug 30 22:45	4°♏40'10 2.65037 AU	opposition	3600 Dec 28 14:48	7°♏02'55 3°02'41	
morning rise	3595 Oct 04 07:17	26°♏37'04				
	3595 Oct 09 15:14	0°♏				
	3595 Nov 26 05:25	0°♏				
	3596 Jan 13 08:48	0°♏				
	3596 Mar 02 17:14	0°♏				
desc. node	3596 Mar 18 20:35	9°♏28'25				
	3596 Apr 25 00:21	0°♏				
retrograde	3596 Jul 10 15:05	25°♏09'15				
opposition	3596 Aug 10 16:14	19°♏47'51 -6°-21'-28				
greatest brilliancy	3596 Aug 12 10:15	19°♏17'29 -2.7m				
min. Earth dist.	3596 Aug 16 17:19	18°♏03'45 0.39955 AU				
direct	3596 Sep 12 10:00	13°♏39'54				
	3596 Nov 04 21:45	0°♏				
	3596 Dec 23 21:25	0°♏				
asc. node	3597 Jan 21 19:06	19°♏43'53				
	3597 Feb 05 14:08	0°♏				
	3597 Mar 20 20:46	0°♏				
	3597 May 04 01:58	0°♏				
	3597 Jun 18 14:51	0°♏				
	3597 Aug 04 06:25	0°♏				
evening set	3597 Aug 09 07:17	3°♏12'38				
	3597 Sep 20 10:42	0°♏				
max. Earth dist.	3597 Sep 22 08:41	1°♏13'04 2.67763 AU				
conjunction	3597 Sep 24 12:09	2°♏34'53 0°59'15				
minimum elong	3597 Sep 24 13:06	2°♏36'23 0°59'15				
	3597 Nov 06 10:59	0°♏				
morning rise	3597 Nov 07 17:19	0°♏48'41				
	3597 Dec 22 19:05	0°♏				
desc. node	3598 Feb 03 19:41	28°♏22'12				
	3598 Feb 06 06:28	0°♏				
	3598 Mar 22 22:52	0°♏				
	3598 May 06 04:55	0°♏				
	3598 Jun 20 03:28	0°♏				
	3598 Aug 09 22:31	0°♏				
retrograde	3598 Sep 28 02:25	14°♏08'21				
min. Earth dist.	3598 Oct 24 11:18	9°♏39'54 0.39466 AU				
opposition	3598 Oct 30 19:58	7°♏46'20 -2°-39'-2				
greatest brilliancy	3598 Oct 30 01:46	7°♏59'56 -2.8m				
direct	3598 Nov 30 00:07	2°♏21'09				
asc. node	3598 Dec 09 17:35	2°♏57'42				
	3599 Feb 16 19:52	0°♏				
	3599 Apr 09 12:06	0°♏				
	3599 May 28 14:23	0°♏				
	3599 Jul 16 03:32	0°♏				
	3599 Sep 02 04:52	0°♏				

conjunction	3601 Dec 08 08:27	16°♏21'44	0°-16'-52		3606 Oct 09 05:25	0°♐	
minimum elong	3601 Dec 08 07:47	16°♏20'35	0°16'52		3606 Nov 28 14:02	0°♑	
	3601 Dec 27 18:04	0°♒			3607 Jan 31 14:39	0°♌	
morning rise	3602 Jan 27 16:31	22°♑22'05		retrograde	3607 Mar 09 03:54	6°♌49'58	
	3602 Feb 07 00:25	0°♈			3607 Apr 11 12:08	30°♌	
	3602 Mar 18 17:57	0°♉		opposition	3607 Apr 17 11:56	27°♌41'45	2°36'25
	3602 Apr 26 14:03	0°♊		greatest brilliancy	3607 Apr 17 22:41	27°♌31'13	-1.3m
	3602 Jun 04 08:11	0°♋		min. Earth dist.	3607 Apr 20 23:40	26°♌19'52	0.65849 AU
	3602 Jul 14 00:54	0°♌		direct	3607 May 29 00:23	17°♌39'35	
	3602 Aug 25 01:26	0°♍		desc. node	3607 Jul 01 13:50	23°♌39'09	
asc. node	3602 Sep 13 16:45	13°♍04'56			3607 Jul 18 09:22	0°♌	
	3602 Oct 11 05:39	0°♎			3607 Sep 12 21:25	0°♏	
retrograde	3602 Dec 30 05:45	28°♎51'26			3607 Oct 28 11:37	0°♐	
min. Earth dist.	3603 Feb 04 00:34	20°♎35'18	0.63012 AU		3607 Dec 08 17:55	0°♑	
greatest brilliancy	3603 Feb 07 07:56	19°♎16'14	-1.4m		3608 Jan 16 18:06	0°♒	
opposition	3603 Feb 08 06:34	18°♎53'40	4°35'31		3608 Feb 23 20:31	0°♓	
direct	3603 Mar 18 19:22	9°♏52'11			3608 Apr 02 03:23	0°♈	
	3603 May 27 02:03	0°♐		evening set	3608 Apr 10 08:27	6°♈20'44	
	3603 Jul 22 21:39	0°♑		asc. node	3608 May 05 13:53	25°♈33'04	
	3603 Sep 10 17:54	0°♒			3608 May 11 12:22	0°♉	
desc. node	3603 Sep 26 16:39	10°♒08'54					
	3603 Oct 26 19:15	0°♓		conjunction	3608 Jun 13 10:49	24°♒08'40	0°24'49
evening set	3603 Dec 03 23:58	26°♓29'40		minimum elong	3608 Jun 13 09:11	24°♒05'45	0°24'48
	3603 Dec 08 21:38	0°♈			3608 Jun 21 15:15	0°♑	
max. Earth dist.	3603 Dec 18 13:05	6°♈57'53	2.44802 AU	max. Earth dist.	3608 Jul 22 06:26	21°♑24'56	2.52330 AU
	3604 Jan 18 15:26	0°♉			3608 Aug 03 20:40	0°♒	
				morning rise	3608 Aug 09 12:27	3°♒48'59	
conjunction	3604 Jan 27 16:01	6°♉50'08	0°-59'-28		3608 Sep 18 06:57	0°♓	
minimum elong	3604 Jan 27 14:25	6°♉47'04	0°59'29		3608 Nov 04 23:51	0°♈	
	3604 Feb 26 17:34	0°♊			3608 Dec 25 20:02	0°♉	
greatest brilliancy	3604 Mar 27 05:27	23°♊07'04	1.2m		3609 Feb 23 09:17	0°♊	
morning rise	3604 Mar 31 10:10	26°♊25'15		retrograde	3609 Apr 17 22:35	13°♊11'28	
	3604 Apr 04 23:16	0°♋		desc. node	3609 May 18 12:53	7°♊28'57	
	3604 May 13 05:13	0°♌		opposition	3609 May 25 01:14	5°♊07'26	0°-16'-28
	3604 Jun 21 08:54	0°♍		greatest brilliancy	3609 May 25 02:30	5°♊06'15	-1.7m
asc. node	3604 Jul 31 14:27	29°♍28'55		min. Earth dist.	3609 Jun 01 02:53	2°♊29'33	0.57529 AU
	3604 Aug 01 07:55	0°♎			3609 Jun 08 07:05	30°♌	
	3604 Sep 14 03:09	0°♏		direct	3609 Jul 04 12:21	25°♌29'37	
	3604 Nov 01 19:51	0°♐			3609 Aug 01 01:43	0°♏	
	3605 Jan 07 13:41	0°♑			3609 Oct 01 02:27	0°♐	
retrograde	3605 Feb 02 00:07	3°♑39'49			3609 Nov 14 10:07	0°♑	
	3605 Feb 25 15:40	30°♑			3609 Dec 24 15:10	0°♒	
opposition	3605 Mar 14 06:38	23°♑54'27	4°12'15		3610 Feb 01 11:14	0°♓	
greatest brilliancy	3605 Mar 14 04:19	23°♑56'45	-1.2m		3610 Mar 12 09:51	0°♈	
min. Earth dist.	3605 Mar 13 22:00	24°♑03'03	0.67745 AU	asc. node	3610 Mar 23 12:27	8°♈25'45	
direct	3605 Apr 24 00:21	14°♑08'56			3610 Apr 21 11:13	0°♉	
	3605 Jun 22 19:37	0°♒			3610 Jun 02 06:18	0°♑	
desc. node	3605 Aug 13 15:10	26°♒52'22		evening set	3610 Jun 10 06:43	5°♑36'01	
	3605 Aug 19 00:02	0°♓			3610 Jul 16 00:29	0°♒	
	3605 Oct 05 23:09	0°♈					
	3605 Nov 18 12:34	0°♉		conjunction	3610 Aug 02 12:54	11°♒39'40	1°03'25
	3605 Dec 29 04:21	0°♊		minimum elong	3610 Aug 02 11:52	11°♒37'57	1°03'24
evening set	3606 Jan 29 04:58	23°♊53'36		max. Earth dist.	3610 Aug 21 07:27	23°♒58'32	2.62476 AU
	3606 Feb 06 00:18	0°♋			3610 Aug 30 14:05	0°♌	
	3606 Mar 16 00:14	0°♌		morning rise	3610 Sep 19 23:21	13°♌06'52	
					3610 Oct 16 13:25	0°♍	
conjunction	3606 Apr 06 10:53	16°♌56'09	0°-45'-31		3610 Dec 03 15:08	0°♎	
minimum elong	3606 Apr 06 14:19	17°♌02'55	0°45'29		3611 Jan 22 02:41	0°♏	
	3606 Apr 23 02:58	0°♍			3611 Mar 16 01:40	0°♐	
max. Earth dist.	3606 May 23 17:41	23°♍34'44	2.38859 AU	desc. node	3611 Apr 05 11:20	10°♐20'21	
	3606 Jun 01 05:31	0°♎			3611 Jun 02 21:34	0°♑	
morning rise	3606 Jun 15 16:23	10°♎47'19		retrograde	3611 Jun 12 18:46	0°♑34'45	
asc. node	3606 Jun 18 13:59	12°♎55'54			3611 Jun 22 08:32	30°♑	
	3606 Jul 12 01:32	0°♏		opposition	3611 Jul 15 15:59	24°♐21'57	-4°-44'-37
	3606 Aug 24 04:48	0°♐		greatest brilliancy	3611 Jul 17 13:04	23°♐45'37	-2.4m

min. Earth dist.	3611 Jul 23 20:46	21°  44'07	0.44598 AU	conjunction	3616 Nov 22 03:03	0°  29'50	0°01'52
direct	3611 Aug 20 14:50	16°  48'44		minimum elong	3616 Nov 22 03:05	0°  29'52	0°01'52
	3611 Oct 06 20:42	0° 		behind sun begin	3616 Nov 21 07:37	29°  15'03	
	3611 Nov 25 15:42	0° 		behind sun end	3616 Nov 22 22:33	1°  20'43	
	3612 Jan 07 00:23	0° 		desc. node	3616 Nov 25 08:57	2°  41'27	
asc. node	3612 Feb 08 11:00	23°  39'36			3617 Jan 03 21:14	0° 	
	3612 Feb 17 03:58	0° 		morning rise	3617 Jan 08 15:50	3°  22'38	
	3612 Mar 29 22:25	0° 			3617 Feb 14 12:11	0° 	
	3612 May 12 03:11	0° 			3617 Mar 26 15:14	0° 	
	3612 Jun 25 23:14	0° 			3617 May 04 20:28	0° 	
evening set	3612 Jul 24 20:51	18°  50'33			3617 Jun 12 23:22	0° 	
	3612 Aug 11 04:30	0° 			3617 Jul 23 03:41	0° 	
					3617 Sep 04 07:13	0° 	
conjunction	3612 Sep 10 06:14	19°  13'17	1°05'39	asc. node	3617 Sep 30 08:13	16°  51'25	
minimum elong	3612 Sep 10 06:51	19°  14'15	1°05'39		3617 Oct 26 04:48	0° 	
max. Earth dist.	3612 Sep 13 07:48	21°  10'26	2.67350 AU	retrograde	3617 Dec 15 18:11	13°  54'35	
	3612 Sep 27 04:47	0° 		min. Earth dist.	3618 Jan 18 14:14	6°  18'33	0.59431 AU
morning rise	3612 Oct 25 00:07	17°  40'52		greatest brilliancy	3618 Jan 23 02:32	4°  31'51	-1.6m
	3612 Nov 13 08:15	0° 		opposition	3618 Jan 24 07:42	4°  03'04	4°18'28
	3612 Dec 30 04:53	0° 			3618 Feb 04 06:09	30° 	
	3613 Feb 14 17:22	0° 		direct	3618 Mar 02 14:49	25° 	
desc. node	3613 Feb 20 10:37	3°  41'40			3618 Mar 31 14:02	0° 	
	3613 Apr 02 06:06	0° 			3618 Jun 08 03:47	0° 	
	3613 May 19 21:40	0° 			3618 Jul 31 06:44	0° 	
	3613 Jul 13 00:34	0° 			3618 Sep 18 02:28	0° 	
retrograde	3613 Aug 30 02:58	12°  51'26		desc. node	3618 Oct 13 07:21	16°  17'17	
min. Earth dist.	3613 Sep 27 20:43	8°  09'44	0.37181 AU		3618 Nov 02 21:09	0° 	
opposition	3613 Sep 29 15:20	7°  41'05	-5°-33'-43	evening set	3618 Nov 16 02:25	9°  20'46	
greatest brilliancy	3613 Sep 29 09:28	7°  45'02	-2.9m	max. Earth dist.	3618 Nov 30 22:18	19°  21'50	2.49975 AU
direct	3613 Oct 29 02:44	2°  47'07			3618 Dec 16 00:20	0° 	
asc. node	3613 Dec 26 10:37	20°  35'34					
	3614 Jan 12 20:53	0° 		conjunction	3619 Jan 06 02:04	15°  16'14	0°-45'-33
	3614 Mar 03 09:52	0° 		minimum elong	3619 Jan 06 00:20	15°  13'04	0°45'32
	3614 Apr 19 14:21	0° 			3619 Jan 25 22:30	0° 	
	3614 Jun 05 19:34	0° 		morning rise	3619 Mar 04 10:44	28° 	
	3614 Jul 23 10:19	0° 			3619 Mar 06 05:54	0° 	
evening set	3614 Sep 01 05:35	25°  10'38			3619 Apr 13 16:17	0° 	
	3614 Sep 09 01:18	0° 			3619 May 22 01:37	0° 	
max. Earth dist.	3614 Oct 06 10:29	17°  24'22	2.66741 AU		3619 Jun 30 07:55	0° 	
					3619 Aug 10 11:54	0° 	
conjunction	3614 Oct 16 12:01	23°  51'14	0°42'36	asc. node	3619 Aug 18 08:19	5°  53'04	
minimum elong	3614 Oct 16 13:04	23°  52'56	0°42'36		3619 Sep 23 23:17	0° 	
	3614 Oct 26 01:07	0° 			3619 Nov 14 12:19	0° 	
morning rise	3614 Nov 29 19:58	22°  14'07		retrograde	3620 Jan 20 17:20	20° 	
	3614 Dec 10 21:11	0° 		min. Earth dist.	3620 Feb 28 04:02	11° 	0.66667 AU
desc. node	3615 Jan 08 10:15	19°  27'09'47		opposition	3620 Mar 01 01:19	10° 	4°30'53
	3615 Jan 24 07:23	0° 		greatest brilliancy	3620 Feb 29 15:12	11° 	-1.3m
	3615 Mar 08 08:09	0° 		direct	3620 Apr 10 02:14	1° 	
	3615 Apr 19 04:35	0° 			3620 Jul 05 15:49	0° 	
	3615 May 30 09:06	0° 			3620 Aug 27 15:18	0° 	
	3615 Jul 11 01:55	0° 		desc. node	3620 Aug 30 06:03	1° 	
	3615 Aug 25 13:07	0° 			3620 Oct 13 14:58	0° 	
retrograde	3615 Nov 02 20:02	25°  13'01'5			3620 Nov 25 22:15	0° 	
asc. node	3615 Nov 13 09:09	24°  14'01'9		evening set	3621 Jan 04 15:21	29° 	
min. Earth dist.	3615 Dec 01 03:22	19°  15'58'51	0.46888 AU		3621 Jan 05 13:59	0° 	
opposition	3615 Dec 09 09:50	17°  12'02'23	1°28'20	max. Earth dist.	3621 Feb 10 18:52	27° 	2.37542 AU
greatest brilliancy	3615 Dec 08 15:55	17°  12'18'21	-2.3m		3621 Feb 13 11:40	0° 	
direct	3616 Jan 11 10:35	10°  11'03'4					
	3616 Mar 17 10:24	0° 		conjunction	3621 Mar 08 02:14	17° 	-1°-2'-9
	3616 May 12 07:16	0° 		minimum elong	3621 Mar 08 03:57	17° 	1°02'09
	3616 Jul 02 07:17	0° 			3621 Mar 23 13:14	0° 	
	3616 Aug 20 10:16	0° 			3621 Apr 30 16:31	0° 	
evening set	3616 Oct 06 23:46	0° 		morning rise	3621 May 18 08:14	13° 	
	3616 Oct 06 20:51	0° 			3621 Jun 08 18:24	0° 	
max. Earth dist.	3616 Oct 29 22:55	15° 	2.60786 AU	asc. node	3621 Jul 05 07:03	19° 	
	3616 Nov 21 09:22	0° 			3621 Jul 19 13:49	0° 	
					3621 Aug 31 19:38	0° 	

	3621 Oct 17 10:27	0°♎			3626 Dec 08 09:13	0°♏		
	3621 Dec 09 07:03	0°♏			3627 Jan 17 14:22	0°♐		
retrograde	3622 Feb 23 03:26	24°♏01'20		asc. node	3627 Feb 25 03:39	28°♐58'57		
opposition	3622 Apr 03 23:44	14°♏35'57	3°21'37		3627 Feb 26 12:23	0°♑		
greatest brilliancy	3622 Apr 04 07:05	14°♏28'42	-1.2m		3627 Apr 08 09:12	0°♒		
min. Earth dist.	3622 Apr 05 23:36	13°♏48'42	0.67372 AU		3627 May 20 21:03	0°♓		
direct	3622 May 15 09:27	4°♏36'49			3627 Jul 04 04:23	0°♈		
desc. node	3622 Jul 18 04:49	22°♏39'54		evening set	3627 Jul 09 09:25	3°♈27'12		
	3622 Aug 01 22:38	0°♎			3627 Aug 19 01:38	0°♎		
	3622 Sep 22 06:08	0°♏						
	3622 Nov 05 17:56	0°♐		conjunction	3627 Aug 27 12:34	5°♎26'43	1°08'17	
	3622 Dec 16 16:08	0°♑		minimum elong	3627 Aug 27 12:39	5°♎26'50	1°08'17	
	3623 Jan 24 13:12	0°♏		max. Earth dist.	3627 Sep 05 08:15	11°♎06'12	2.66095 AU	
	3623 Mar 03 13:30	0°♐			3627 Oct 04 23:40	0°♏		
greatest brilliancy	3623 Mar 13 19:25	8°♐05'48	1.2m	morning rise	3627 Oct 12 06:24	4°♏37'10		
evening set	3623 Mar 14 00:58	8°♐16'44			3627 Nov 21 09:06	0°♎		
	3623 Apr 10 17:40	0°♑			3628 Jan 07 23:32	0°♏		
	3623 May 19 22:56	0°♒			3628 Feb 25 01:33	0°♐		
				desc. node	3628 Mar 09 01:55	7°♐59'35		
conjunction	3623 May 20 22:59	0°♒45'04	0°-1'-32		3628 Apr 14 21:30	0°♑		
minimum elong	3623 May 20 23:08	0°♒45'21	0°01'33		3628 Jun 11 13:01	0°♏		
behind sun begin	3623 May 19 19:40	29°♑53'52		retrograde	3628 Jul 28 18:20	11°♏33'17		
behind sun end	3623 May 22 02:37	1°♒36'46		opposition	3628 Aug 27 21:53	6°♏32'30	-6°-43'-9	
asc. node	3623 May 23 05:22	2°♒26'47		greatest brilliancy	3628 Aug 29 03:08	6°♏12'42	-2.8m	
	3623 Jun 29 21:52	0°♓		min. Earth dist.	3628 Aug 31 17:35	5°♏30'32	0.38118 AU	
max. Earth dist.	3623 Jul 07 06:36	5°♓14'16	2.47175 AU	direct	3628 Sep 27 22:28	1°♏07'26		
morning rise	3623 Jul 22 04:29	15°♓41'57			3628 Dec 13 05:04	0°♐		
	3623 Aug 12 00:41	0°♈		asc. node	3629 Jan 12 01:33	18°♐50'21		
	3623 Sep 26 13:17	0°♎			3629 Jan 28 22:44	0°♑		
	3623 Nov 13 21:30	0°♏			3629 Mar 14 13:47	0°♒		
	3624 Jan 06 03:18	0°♎			3629 Apr 28 13:35	0°♓		
retrograde	3624 Mar 31 23:00	28°♎28'57			3629 Jun 13 13:54	0°♈		
opposition	3624 May 09 03:07	19°♎55'34	1°01'11		3629 Jul 30 12:26	0°♎		
greatest brilliancy	3624 May 09 11:01	19°♎48'00	-1.5m	evening set	3629 Aug 17 19:28	11°♎36'17		
min. Earth dist.	3624 May 14 20:57	17°♎43'58	0.61509 AU		3629 Sep 15 19:50	0°♏		
desc. node	3624 Jun 04 03:29	11°♎31'28		max. Earth dist.	3629 Sep 27 12:56	7°♏26'33	2.67640 AU	
direct	3624 Jun 19 07:13	10°♎00'52						
	3624 Aug 23 06:57	0°♏		conjunction	3629 Oct 02 12:57	10°♏37'34	0°53'59	
	3624 Oct 12 08:22	0°♐		minimum elong	3629 Oct 02 14:00	10°♏39'14	0°53'58	
	3624 Nov 23 21:20	0°♑			3629 Nov 01 19:36	0°♎		
	3625 Jan 02 10:07	0°♏		morning rise	3629 Nov 15 15:43	8°♎55'41		
	3625 Feb 09 20:23	0°♐			3629 Dec 17 23:01	0°♏		
	3625 Mar 20 10:34	0°♑		desc. node	3630 Jan 25 00:46	25°♏18'03		
asc. node	3625 Apr 09 05:11	15°♑05'03			3630 Feb 01 00:24	0°♐		
	3625 Apr 29 03:23	0°♒			3630 Mar 17 00:33	0°♑		
evening set	3625 May 19 20:03	15°♒09'14			3630 Apr 29 04:55	0°♏		
	3625 Jun 09 14:15	0°♓			3630 Jun 11 06:37	0°♐		
					3630 Jul 26 12:35	0°♑		
conjunction	3625 Jul 15 19:05	25°♓04'27	0°53'28		3630 Oct 03 02:15	0°♒		
minimum elong	3625 Jul 15 17:22	25°♓01'34	0°53'26	retrograde	3630 Oct 12 03:43	0°♒35'31		
	3625 Jul 23 01:45	0°♈			3630 Oct 21 01:55	30°♒♏		
max. Earth dist.	3625 Aug 10 19:48	12°♈31'42	2.59112 AU	min. Earth dist.	3630 Nov 07 18:19	25°♏50'44	0.41751 AU	
morning rise	3625 Sep 04 20:36	28°♈55'48		opposition	3630 Nov 15 09:04	23°♏24'15	0°-56'-36	
	3625 Sep 06 12:13	0°♎		greatest brilliancy	3630 Nov 14 23:49	23°♏31'42	-2.6m	
	3625 Oct 23 15:15	0°♏		asc. node	3630 Nov 30 01:56	19°♏17'03		
	3625 Dec 11 10:26	0°♎		direct	3630 Dec 16 13:16	17°♏28'44		
	3626 Feb 01 00:43	0°♏			3631 Feb 03 12:53	0°♒		
	3626 Apr 03 12:34	0°♐			3631 Apr 02 02:20	0°♓		
desc. node	3626 Apr 22 02:52	6°♐11'13			3631 May 22 19:32	0°♈		
retrograde	3626 May 19 08:03	10°♐11'04			3631 Jul 11 01:44	0°♎		
opposition	3626 Jun 23 03:35	3°♐08'20	-2°-51'-15		3631 Aug 28 11:06	0°♏		
greatest brilliancy	3626 Jun 24 09:36	2°♐42'14	-2.1m	evening set	3631 Sep 23 15:09	16°♏31'13		
min. Earth dist.	3626 Jul 01 14:38	0°♐12'20	0.49874 AU		3631 Oct 14 15:53	0°♎		
	3626 Jul 02 05:18	30°♒♏		max. Earth dist.	3631 Oct 21 00:32	4°♎07'03	2.63729 AU	
direct	3626 Jul 31 11:08	24°♏28'53						
	3626 Aug 30 04:14	0°♐		conjunction	3631 Nov 08 01:10	15°♎54'06	0°19'14	
	3626 Oct 26 07:41	0°♑		minimum elong	3631 Nov 08 01:47	15°♎55'07	0°19'13	

	3631 Nov 29 06:09	0°♊		opposition	3637 Mar 21 19:41	1°♌45'03	3°56'31
desc. node	3631 Dec 12 23:40	9°♊16'29		greatest brilliancy	3637 Mar 21 21:18	1°♌43'26	-1.2m
morning rise	3631 Dec 23 18:44	16°♊38'53		min. Earth dist.	3637 Mar 22 07:32	1°♌33'16	0.67891 AU
	3632 Jan 12 01:07	0°♋			3637 Mar 26 06:00	30°♌♐	
	3632 Feb 23 02:56	0°♌		direct	3637 May 01 20:40	21°♐53'27	
	3632 Apr 03 18:39	0°♍			3637 Jun 11 06:18	0°♌	
	3632 May 13 13:02	0°♎		desc. node	3637 Aug 03 19:55	24°♌59'54	
	3632 Jun 22 06:27	0°♏			3637 Aug 12 18:40	0°♌	
	3632 Aug 02 09:05	0°♐			3637 Sep 30 16:48	0°♊	
	3632 Sep 17 00:49	0°♑			3637 Nov 13 13:27	0°♋	
asc. node	3632 Oct 17 01:53	15°♑55'51			3637 Dec 24 07:40	0°♌	
retrograde	3632 Nov 30 02:14	27°♑14'34			3638 Feb 01 04:04	0°♍	
min. Earth dist.	3632 Dec 31 18:51	20°♑24'39	0.54954 AU	evening set	3638 Feb 13 12:23	9°♍42'43	
opposition	3633 Jan 07 20:37	17°♑41'11	3°39'05		3638 Mar 11 04:02	0°♎	
greatest brilliancy	3633 Jan 06 12:34	18°♑12'07	-1.8m		3638 Apr 18 07:01	0°♏	
direct	3633 Feb 12 16:03	9°♑39'31					
	3633 Apr 22 06:30	0°♒		conjunction	3638 Apr 23 03:24	3°♏46'26	0°-30'-41
	3633 Jun 18 01:08	0°♓		minimum elong	3638 Apr 23 06:10	3°♏51'48	0°30'40
	3633 Aug 08 01:56	0°♑			3638 May 27 09:53	0°♐	
	3633 Sep 25 05:20	0°♒		asc. node	3638 Jun 08 22:28	9°♐21'26	
desc. node	3633 Oct 29 22:12	22°♒40'08		max. Earth dist.	3638 Jun 14 08:26	13°♐21'40	2.41702 AU
evening set	3633 Oct 30 18:04	23°♒13'16		morning rise	3638 Jun 29 21:12	24°♐42'08	
	3633 Nov 09 20:21	0°♊			3638 Jul 07 05:53	0°♑	
max. Earth dist.	3633 Nov 16 23:34	4°♊50'33	2.54698 AU		3638 Aug 19 07:33	0°♒	
					3638 Oct 04 01:23	0°♓	
conjunction	3633 Dec 18 04:58	26°♊32'15	0°-27'-44		3638 Nov 22 10:20	0°♑	
minimum elong	3633 Dec 18 03:51	26°♊30'17	0°27'45		3639 Jan 19 08:19	0°♒	
	3633 Dec 23 02:00	0°♋		retrograde	3639 Mar 17 11:30	14°♒47'59	
	3634 Feb 02 05:43	0°♌		opposition	3639 Apr 25 11:27	5°♒50'48	2°04'52
morning rise	3634 Feb 08 14:46	4°♌46'01		greatest brilliancy	3639 Apr 25 22:31	5°♒40'03	-1.4m
	3634 Mar 13 19:30	0°♍		min. Earth dist.	3639 Apr 29 19:05	4°♒10'13	0.64579 AU
	3634 Apr 21 11:40	0°♎			3639 May 11 10:31	30°♒♌	
	3634 May 30 01:54	0°♏		direct	3639 Jun 05 23:28	25°♌49'07	
	3634 Jul 08 13:19	0°♐		desc. node	3639 Jun 21 19:19	27°♌17'59	
	3634 Aug 19 03:13	0°♑			3639 Jul 03 08:25	0°♒	
asc. node	3634 Sep 03 23:58	10°♑49'51			3639 Sep 06 03:57	0°♊	
	3634 Oct 03 21:35	0°♒			3639 Oct 22 21:16	0°♋	
	3634 Dec 01 22:00	0°♓			3639 Dec 03 12:29	0°♌	
retrograde	3635 Jan 07 04:59	7°♓22'52			3640 Jan 11 16:13	0°♍	
	3635 Feb 09 21:44	30°♒♒			3640 Feb 18 20:34	0°♎	
min. Earth dist.	3635 Feb 13 00:20	28°♒46'30	0.64591 AU		3640 Mar 28 05:12	0°♏	
opposition	3635 Feb 16 09:53	27°♒25'03	4°37'54	evening set	3640 Apr 25 12:22	21°♏38'11	
greatest brilliancy	3635 Feb 15 15:40	27°♒43'15	-1.4m	asc. node	3640 Apr 25 20:29	21°♏53'28	
direct	3635 Mar 27 13:02	18°♒11'23			3640 May 06 15:58	0°♐	
	3635 May 16 20:13	0°♓			3640 Jun 16 20:39	0°♑	
	3635 Jul 16 20:10	0°♑					
	3635 Sep 05 14:40	0°♒		conjunction	3640 Jun 25 23:09	6°♑26'09	0°37'14
desc. node	3635 Sep 16 20:45	7°♒03'48		minimum elong	3640 Jun 25 21:13	6°♑22'44	0°37'13
	3635 Oct 21 23:47	0°♊		max. Earth dist.	3640 Jul 29 22:09	29°♑51'26	2.54971 AU
	3635 Dec 04 04:20	0°♋			3640 Jul 30 03:13	0°♒	
evening set	3635 Dec 15 02:11	7°♋52'49		morning rise	3640 Aug 19 13:32	13°♒40'29	
max. Earth dist.	3635 Dec 31 19:47	20°♋11'35	2.41955 AU		3640 Sep 13 12:17	0°♓	
	3636 Jan 13 22:00	0°♌			3640 Oct 30 22:12	0°♑	
					3640 Dec 19 19:41	0°♒	
conjunction	3636 Feb 10 06:41	20°♌55'41	-1°-3'-58		3641 Feb 13 04:36	0°♊	
minimum elong	3636 Feb 10 05:51	20°♌54'03	1°03'59	retrograde	3641 Apr 28 11:38	22°♊39'58	
	3636 Feb 21 22:49	0°♍		desc. node	3641 May 08 17:46	22°♊00'43	
	3636 Mar 31 02:56	0°♎		opposition	3641 Jun 03 21:21	14°♊55'11	-1°-8'-23
morning rise	3636 Apr 17 12:10	13°♎42'00		greatest brilliancy	3641 Jun 04 08:50	14°♊44'42	-1.8m
	3636 May 08 07:29	0°♏		min. Earth dist.	3641 Jun 11 14:30	12°♊06'19	0.54998 AU
	3636 Jun 16 09:31	0°♐		direct	3641 Jul 13 18:58	5°♊32'32	
asc. node	3636 Jul 21 23:06	26°♐13'14			3641 Sep 22 11:45	0°♋	
	3636 Jul 27 05:36	0°♑			3641 Nov 07 21:38	0°♌	
	3636 Sep 08 17:18	0°♒			3641 Dec 18 19:09	0°♍	
	3636 Oct 26 08:41	0°♓			3642 Jan 26 23:30	0°♎	
	3636 Dec 23 13:47	0°♑			3642 Mar 07 04:04	0°♏	
retrograde	3637 Feb 09 15:23	11°♑24'13		asc. node	3642 Mar 13 20:05	5°♏02'27	

	3642 Apr 16 10:16	0°♊			3647 Mar 03 01:08	0°♊		
	3642 May 28 09:31	0°♋			3647 Apr 13 09:58	0°♋		
evening set	3642 Jun 21 10:17	16°♋35'06			3647 May 23 23:26	0°♌		
	3642 Jul 11 07:02	0°♍			3647 Jul 03 17:10	0°♌		
					3647 Aug 15 18:10	0°♊		
conjunction	3642 Aug 11 23:48	20°♍56'34	1°06'38		3647 Oct 08 15:55	0°♋		
minimum elong	3642 Aug 11 23:12	20°♍55'35	1°06'38	asc. node	3647 Nov 03 17:30	7°♋28'10		
	3642 Aug 25 22:17	0°♎		retrograde	3647 Nov 13 17:21	8°♋11'10		
max. Earth dist.	3642 Aug 27 02:30	0°♎45'36	2.64005 AU	min. Earth dist.	3647 Dec 13 04:23	2°♋12'02	0.49838 AU	
morning rise	3642 Sep 28 06:42	21°♎23'30			3647 Dec 19 03:50	30°♌♊		
	3642 Oct 11 20:10	0°♏		greatest brilliancy	3647 Dec 20 03:04	29°♌38'27	-2.1m	
	3642 Nov 28 14:37	0°♎		opposition	3647 Dec 21 06:11	29°♌13'22	2°28'16	
	3643 Jan 16 06:08	0°♏		direct	3648 Jan 24 07:57	21°♌54'07		
	3643 Mar 07 20:30	0°♐			3648 Mar 03 11:20	0°♋		
desc. node	3643 Mar 26 16:25	10°♐31'31			3648 May 05 07:43	0°♍		
	3643 May 04 14:57	0°♊			3648 Jun 26 19:34	0°♎		
retrograde	3643 Jun 28 09:54	14°♊18'09			3648 Aug 15 12:24	0°♏		
opposition	3643 Jul 30 06:34	8°♊34'32	-5°-44'-46		3648 Oct 02 04:35	0°♎		
greatest brilliancy	3643 Aug 01 05:06	7°♊59'03	-2.5m	evening set	3648 Oct 15 10:42	8°♎34'56		
min. Earth dist.	3643 Aug 06 13:51	6°♊22'00	0.41881 AU	max. Earth dist.	3648 Nov 05 04:04	22°♎14'13	2.58798 AU	
direct	3643 Sep 02 11:45	1°♊47'37		desc. node	3648 Nov 15 13:22	29°♎11'40		
	3643 Nov 15 10:57	0°♋			3648 Nov 16 18:03	0°♏		
	3643 Dec 30 11:26	0°♌						
asc. node	3644 Jan 29 19:35	21°♌28'25		conjunction	3648 Dec 01 05:29	9°♏50'41	0°-8'-56	
	3644 Feb 10 18:51	0°♌		minimum elong	3648 Dec 01 05:08	9°♏50'05	0°08'57	
	3644 Mar 24 06:13	0°♊		behind sun begin	3648 Nov 30 12:10	9°♏21'01		
	3644 May 06 22:16	0°♋		behind sun end	3648 Dec 01 22:06	10°♏19'09		
	3644 Jun 21 02:03	0°♍			3648 Dec 30 03:52	0°♐		
evening set	3644 Aug 02 19:31	27°♍38'16		morning rise	3649 Jan 19 04:17	14°♐19'20		
	3644 Aug 06 12:04	0°♎			3649 Feb 09 14:55	0°♊		
					3649 Mar 21 13:14	0°♋		
conjunction	3644 Sep 18 11:23	27°♎23'08	1°02'19		3649 Apr 29 13:24	0°♌		
minimum elong	3644 Sep 18 12:12	27°♎24'26	1°02'20		3649 Jun 07 10:56	0°♌		
max. Earth dist.	3644 Sep 18 14:12	27°♎27'36	2.67687 AU		3649 Jul 17 07:07	0°♊		
	3644 Sep 22 14:04	0°♏			3649 Aug 28 15:16	0°♋		
morning rise	3644 Nov 01 20:47	25°♏39'21		asc. node	3649 Sep 20 17:24	15°♋03'17		
	3644 Nov 08 15:48	0°♎			3649 Oct 16 01:53	0°♍		
	3644 Dec 25 05:26	0°♏		retrograde	3649 Dec 24 03:51	23°♍04'32		
	3645 Feb 09 03:19	0°♐		min. Earth dist.	3650 Jan 28 02:31	15°♍05'31	0.61524 AU	
desc. node	3645 Feb 10 15:50	1°♐00'04		greatest brilliancy	3650 Jan 31 22:29	13°♍34'17	-1.5m	
	3645 Mar 26 13:15	0°♊		opposition	3650 Feb 02 00:17	13°♍08'39	4°30'51	
	3645 May 10 23:42	0°♋		direct	3650 Mar 12 00:42	4°♍17'59		
	3645 Jun 27 08:27	0°♌			3650 May 31 16:05	0°♎		
	3645 Sep 02 16:03	0°♌			3650 Jul 25 17:57	0°♏		
retrograde	3645 Sep 16 02:23	1°♌12'55			3650 Sep 13 04:22	0°♎		
	3645 Sep 29 12:02	30°♌♌		desc. node	3650 Oct 03 12:30	13°♎01'14		
min. Earth dist.	3645 Oct 13 00:16	26°♌46'57	0.38077 AU		3650 Oct 29 04:07	0°♏		
opposition	3645 Oct 17 15:52	25°♌28'30	-4°00'-17	evening set	3650 Nov 26 01:06	19°♏10'07		
greatest brilliancy	3645 Oct 16 22:32	25°♌40'42	-2.9m	max. Earth dist.	3650 Dec 10 04:10	29°♏10'14	2.47132 AU	
direct	3645 Nov 16 05:19	20°♌23'09			3650 Dec 11 08:00	0°♐		
asc. node	3645 Dec 16 18:16	25°♌55'57						
	3645 Dec 27 14:58	0°♌		conjunction	3651 Jan 17 22:21	27°♐33'05	0°-54'-16	
	3646 Feb 23 00:43	0°♊		minimum elong	3651 Jan 17 20:33	27°♐29'43	0°54'15	
	3646 Apr 13 06:50	0°♋			3651 Jan 21 04:41	0°♊		
	3646 May 31 10:29	0°♍			3651 Mar 01 09:41	0°♋		
	3646 Jul 18 12:42	0°♎		morning rise	3651 Mar 19 17:57	14°♋18'47		
	3646 Sep 04 09:10	0°♏			3651 Apr 08 17:27	0°♌		
evening set	3646 Sep 09 09:51	3°♏10'28		greatest brilliancy	3651 May 14 07:51	27°♌54'09	1.2m	
max. Earth dist.	3646 Oct 11 18:43	23°♏46'54	2.65892 AU		3651 May 17 00:33	0°♌		
	3646 Oct 21 10:32	0°♎			3651 Jun 25 04:26	0°♊		
					3651 Aug 05 03:49	0°♋		
conjunction	3646 Oct 24 14:35	2°♎02'53	0°34'40	asc. node	3651 Aug 08 15:04	2°♋27'24		
minimum elong	3646 Oct 24 15:32	2°♎04'26	0°34'40		3651 Sep 18 03:00	0°♍		
	3646 Dec 06 04:29	0°♏			3651 Nov 06 15:07	0°♎		
morning rise	3646 Dec 08 06:39	1°♏23'42		retrograde	3652 Jan 28 08:22	28°♎41'44		
desc. node	3646 Dec 29 14:36	15°♏45'58		opposition	3652 Mar 08 16:27	18°♎52'14	4°21'16	
	3647 Jan 19 09:07	0°♐		greatest brilliancy	3652 Mar 08 10:49	18°♎57'51	-1.2m	

min. Earth dist.	3652 Mar 07 15:50	19° \mathbb{M} 16'48	0.67396 AU	asc. node	3657 Mar 30 13:00	11° \mathbb{B} 33'23	
direct	3652 Apr 18 03:28	9° \mathbb{M} 12'18			3657 Apr 24 05:08	0° \mathbb{H}	
	3652 Jun 27 19:10	0° $\underline{\mathbb{A}}$		evening set	3657 Jun 01 07:34	27° \mathbb{H} 32'33	
desc. node	3652 Aug 20 11:26	29° $\underline{\mathbb{A}}$ 05'00			3657 Jun 04 19:06	0° \mathbb{S}	
	3652 Aug 22 00:25	0° \mathbb{M}			3657 Jul 18 08:59	0° \mathbb{Q}	
	3652 Oct 08 14:41	0° \mathbb{Z}					
	3652 Nov 21 02:48	0° \mathbb{Z}		conjunction	3657 Jul 26 02:52	5° \mathbb{Q} 11'46	0°59'56
	3652 Dec 31 19:43	0° \approx		minimum elong	3657 Jul 26 01:32	5° \mathbb{Q} 09'32	0°59'54
evening set	3653 Jan 18 01:48	13° \approx 10'58		max. Earth dist.	3657 Aug 17 01:01	19° \mathbb{Q} 42'27	2.61070 AU
	3653 Feb 08 17:00	0° \mathbb{H}			3657 Sep 01 19:51	0° \mathbb{M}	
	3653 Mar 18 17:34	0° \mathbb{Y}		morning rise	3657 Sep 13 15:08	7° \mathbb{M} 37'05	
					3657 Oct 18 19:41	0° $\underline{\mathbb{A}}$	
conjunction	3653 Mar 24 10:36	4° \mathbb{Y} 31'00	0°-54'-29		3657 Dec 06 03:35	0° \mathbb{M}	
minimum elong	3653 Mar 24 13:40	4° \mathbb{Y} 37'03	0°54'27		3658 Jan 25 09:08	0° \mathbb{Z}	
max. Earth dist.	3653 Apr 19 18:24	25° \mathbb{Y} 15'22	2.37150 AU		3658 Mar 21 19:49	0° \mathbb{Z}	
	3653 Apr 25 20:01	0° \mathbb{B}		desc. node	3658 Apr 12 07:19	9° \mathbb{Z} 41'53	
morning rise	3653 Jun 03 19:26	29° \mathbb{B} 56'34		retrograde	3658 Jun 01 15:24	21° \mathbb{Z} 44'46	
	3653 Jun 03 21:15	0° \mathbb{H}		opposition	3658 Jul 05 09:27	15° \mathbb{Z} 08'39	-3°-55'-24
asc. node	3653 Jun 25 14:05	16° \mathbb{H} 09'36		greatest brilliancy	3658 Jul 07 01:17	14° \mathbb{Z} 35'15	-2.2m
	3653 Jul 14 15:27	0° \mathbb{S}		min. Earth dist.	3658 Jul 13 20:42	12° \mathbb{Z} 18'58	0.46948 AU
	3653 Aug 26 18:02	0° \mathbb{Q}		direct	3658 Aug 11 12:04	7° \mathbb{Z} 02'28	
	3653 Oct 11 21:52	0° \mathbb{M}			3658 Oct 16 05:34	0° \approx	
	3653 Dec 02 00:26	0° $\underline{\mathbb{A}}$			3658 Dec 01 01:01	0° \mathbb{H}	
	3654 Feb 13 07:46	0° \mathbb{M}			3659 Jan 11 06:13	0° \mathbb{Y}	
retrograde	3654 Mar 03 01:52	1° \mathbb{M} 48'13		asc. node	3659 Feb 15 11:15	26° \mathbb{Y} 06'12	
	3654 Mar 19 21:02	30° \mathbb{R} $\underline{\mathbb{A}}$			3659 Feb 20 18:01	0° \mathbb{B}	
opposition	3654 Apr 11 16:32	22° $\underline{\mathbb{A}}$ 31'56	2°56'20		3659 Apr 03 00:53	0° \mathbb{H}	
greatest brilliancy	3654 Apr 12 02:05	22° $\underline{\mathbb{A}}$ 22'33	-1.3m		3659 May 15 20:14	0° \mathbb{S}	
min. Earth dist.	3654 Apr 14 12:46	21° $\underline{\mathbb{A}}$ 24'57	0.66663 AU		3659 Jun 29 09:18	0° \mathbb{Q}	
direct	3654 May 23 04:58	12° $\underline{\mathbb{A}}$ 30'25		evening set	3659 Jul 18 23:02	12° \mathbb{Q} 51'28	
desc. node	3654 Jul 08 09:52	23° $\underline{\mathbb{A}}$ 01'33			3659 Aug 14 09:57	0° \mathbb{M}	
	3654 Jul 24 09:08	0° \mathbb{M}					
	3654 Sep 16 08:02	0° \mathbb{Z}		conjunction	3659 Sep 05 01:08	13° \mathbb{M} 52'18	1°07'13
	3654 Oct 31 11:38	0° \mathbb{Z}		minimum elong	3659 Sep 05 01:32	13° \mathbb{M} 52'56	1°07'13
	3654 Dec 11 15:28	0° \approx		max. Earth dist.	3659 Sep 10 15:08	17° \mathbb{M} 26'11	2.66891 AU
	3655 Jan 19 14:53	0° \mathbb{H}			3659 Sep 30 08:39	0° $\underline{\mathbb{A}}$	
	3655 Feb 26 16:19	0° \mathbb{Y}		morning rise	3659 Oct 20 04:15	12° $\underline{\mathbb{A}}$ 35'15	
evening set	3655 Mar 30 03:36	24° \mathbb{Y} 44'52			3659 Nov 16 14:27	0° \mathbb{M}	
	3655 Apr 05 21:27	0° \mathbb{B}			3660 Jan 02 18:15	0° \mathbb{Z}	
asc. node	3655 May 13 14:18	28° \mathbb{B} 49'46			3660 Feb 18 21:31	0° \mathbb{Z}	
	3655 May 15 03:45	0° \mathbb{H}		desc. node	3660 Feb 28 06:21	5° \mathbb{Z} 56'25	
					3660 Apr 06 14:43	0° \approx	
conjunction	3655 Jun 04 05:27	14° \mathbb{H} 52'20	0°14'13		3660 May 26 23:35	0° \mathbb{H}	
minimum elong	3655 Jun 04 04:22	14° \mathbb{H} 50'21	0°14'11	retrograde	3660 Aug 16 02:56	29° \mathbb{H} 16'59	
behind sun begin	3655 Jun 03 16:16	14° \mathbb{H} 28'13		opposition	3660 Sep 15 04:01	24° \mathbb{H} 19'31	-6°-21'-50
behind sun end	3655 Jun 04 16:27	15° \mathbb{H} 12'28		greatest brilliancy	3660 Sep 15 13:42	24° \mathbb{H} 13'05	-2.9m
	3655 Jun 25 03:22	0° \mathbb{S}		min. Earth dist.	3660 Sep 15 23:31	24° \mathbb{H} 06'34	0.37194 AU
max. Earth dist.	3655 Jul 16 20:09	15° \mathbb{S} 17'38	2.50076 AU	direct	3660 Oct 15 02:17	19° \mathbb{H} 20'08	
morning rise	3655 Aug 02 11:48	26° \mathbb{S} 45'42			3660 Nov 26 20:12	0° \mathbb{Y}	
	3655 Aug 07 06:06	0° \mathbb{Q}		asc. node	3661 Jan 02 10:48	19° \mathbb{Y} 18'58	
	3655 Sep 21 15:33	0° \mathbb{M}			3661 Jan 20 01:22	0° \mathbb{B}	
	3655 Nov 08 12:47	0° $\underline{\mathbb{A}}$			3661 Mar 07 20:05	0° \mathbb{H}	
	3655 Dec 30 03:45	0° \mathbb{M}			3661 Apr 22 20:50	0° \mathbb{S}	
	3656 Mar 03 14:36	0° \mathbb{Z}			3661 Jun 08 11:20	0° \mathbb{Q}	
retrograde	3656 Apr 10 09:24	7° \mathbb{Z} 11'01			3661 Jul 25 17:51	0° \mathbb{M}	
	3656 May 15 00:54	30° \mathbb{R} \mathbb{M}		evening set	3661 Aug 26 02:55	19° \mathbb{M} 48'57	
opposition	3656 May 18 00:34	28° \mathbb{M} 53'04	0°17'58		3661 Sep 11 05:13	0° $\underline{\mathbb{A}}$	
greatest brilliancy	3656 May 18 03:24	28° \mathbb{M} 50'23	-1.6m	max. Earth dist.	3661 Oct 02 17:13	13° $\underline{\mathbb{A}}$ 39'35	2.67249 AU
min. Earth dist.	3656 May 24 13:02	26° \mathbb{M} 25'40	0.59420 AU				
desc. node	3656 May 25 08:40	26° \mathbb{M} 07'30		conjunction	3661 Oct 10 12:54	18° $\underline{\mathbb{A}}$ 39'09	0°47'40
direct	3656 Jun 27 21:08	19° \mathbb{M} 06'03		minimum elong	3661 Oct 10 13:58	18° $\underline{\mathbb{A}}$ 40'52	0°47'40
	3656 Aug 12 01:06	0° \mathbb{Z}			3661 Oct 28 05:20	0° \mathbb{M}	
	3656 Oct 05 14:07	0° \mathbb{Z}		morning rise	3661 Nov 23 17:11	17° \mathbb{M} 11'15	
	3656 Nov 18 01:41	0° \approx			3661 Dec 13 04:57	0° \mathbb{Z}	
	3656 Dec 27 23:29	0° \mathbb{H}		desc. node	3662 Jan 15 06:03	22° \mathbb{Z} 05'07	
	3657 Feb 04 14:41	0° \mathbb{Y}			3662 Jan 26 22:09	0° \mathbb{Z}	
	3657 Mar 15 08:44	0° \mathbb{B}			3662 Mar 11 08:54	0° \approx	

	3662 Apr 22 18:16	0° H		direct	3667 Apr 04 23:40	26° Ω 18'16	
	3662 Jun 03 15:08	0° Y			3667 May 01 05:03	0° M	
	3662 Jul 16 10:23	0° B			3667 Jul 10 07:34	0° Ω	
	3662 Sep 03 05:57	0° Π			3667 Aug 31 08:11	0° M	
retrograde	3662 Oct 24 20:18	15° Π 40'44		desc. node	3667 Sep 07 01:51	4° M 09'37	
asc. node	3662 Nov 20 09:50	10° Π 49'29			3667 Oct 17 02:51	0° J	
min. Earth dist.	3662 Nov 21 07:19	10° Π 31'50	0.44517 AU		3667 Nov 29 10:21	0° B	
opposition	3662 Nov 29 12:06	7° Π 43'42	0°32'50	evening set	3667 Dec 26 22:22	20° B 04'47	
greatest brilliancy	3662 Nov 29 05:02	7° Π 49'45	-2.4m		3668 Jan 09 03:59	0° \approx	
direct	3662 Dec 31 16:18	1° Π 16'18		max. Earth dist.	3668 Jan 19 20:59	8° \approx 07'57	2.39275 AU
	3663 Mar 24 13:52	0° B			3668 Feb 17 03:46	0° H	
	3663 May 16 17:50	0° Ω					
	3663 Jul 05 21:42	0° M		conjunction	3668 Feb 24 23:23	6° H 07'13	-1°-4'-41
	3663 Aug 23 16:48	0° Ω		minimum elong	3668 Feb 24 23:52	6° H 08'11	1°04'42
evening set	3663 Oct 01 19:15	24° Ω 41'30			3668 Mar 26 06:34	0° Y	
	3663 Oct 10 01:30	0° M			3668 May 03 09:59	0° B	
max. Earth dist.	3663 Oct 26 17:01	10° M 48'41	2.62204 AU	morning rise	3668 May 04 23:31	1° B 13'09	
					3668 Jun 11 11:05	0° Π	
conjunction	3663 Nov 16 12:58	24° M 34'07	0°09'21	asc. node	3668 Jul 12 07:21	22° Π 50'55	
minimum elong	3663 Nov 16 13:17	24° M 34'39	0°09'21		3668 Jul 22 05:12	0° B	
behind sun begin	3663 Nov 15 21:18	24° M 08'02			3668 Sep 03 11:20	0° Ω	
behind sun end	3663 Nov 17 05:16	25° M 01'18			3668 Oct 20 08:29	0° M	
	3663 Nov 24 15:40	0° J			3668 Dec 13 16:40	0° Ω	
desc. node	3663 Dec 03 04:49	5° J 46'09		retrograde	3669 Feb 17 08:09	19° Ω 07'47	
morning rise	3664 Jan 02 04:03	26° J 23'30		opposition	3669 Mar 29 08:59	9° Ω 35'55	3°37'10
	3664 Jan 07 07:40	0° B		greatest brilliancy	3669 Mar 29 14:01	9° Ω 30'56	-1.2m
	3664 Feb 18 04:03	0° \approx		min. Earth dist.	3669 Mar 30 17:09	9° Ω 04'04	0.67734 AU
	3664 Mar 29 13:03	0° H			3669 May 02 06:22	30° R M	
	3664 May 07 23:42	0° Y		direct	3669 May 09 15:44	29° M 39'30	
	3664 Jun 16 07:50	0° B			3669 May 17 05:10	0° Ω	
	3664 Jul 26 19:05	0° Π		desc. node	3669 Jul 25 00:52	23° Ω 43'02	
	3664 Sep 08 15:34	0° B			3669 Aug 05 23:34	0° M	
asc. node	3664 Oct 07 08:31	17° B 02'17			3669 Sep 25 06:00	0° J	
	3664 Nov 03 23:23	0° Ω			3669 Nov 08 12:39	0° B	
retrograde	3664 Dec 09 05:58	7° Ω 28'25			3669 Dec 19 10:07	0° \approx	
min. Earth dist.	3665 Jan 11 03:27	0° Ω 12'12	0.57542 AU		3670 Jan 27 07:31	0° H	
	3665 Jan 11 16:06	30° R B		evening set	3670 Mar 01 10:19	26° H 07'56	
greatest brilliancy	3665 Jan 16 04:44	28° B 13'48	-1.7m		3670 Mar 06 07:34	0° Y	
opposition	3665 Jan 17 11:54	27° B 43'17	4°05'25		3670 Apr 13 10:36	0° B	
direct	3665 Feb 23 04:10	19° B 21'46					
	3665 Apr 10 19:49	0° Ω		conjunction	3670 May 09 04:31	19° B 51'38	0°-14'-7
	3665 Jun 11 16:30	0° M		minimum elong	3670 May 09 05:49	19° B 54'06	0°14'07
	3665 Aug 02 20:52	0° Ω		behind sun begin	3670 May 08 16:06	19° B 27'58	
	3665 Sep 20 10:24	0° M		behind sun end	3670 May 09 19:32	20° B 20'14	
desc. node	3665 Oct 20 03:05	19° M 16'04			3670 May 22 13:52	0° Π	
	3665 Nov 05 04:39	0° J		asc. node	3670 May 30 05:51	5° Π 44'29	
evening set	3665 Nov 08 21:44	2° J 30'37		max. Earth dist.	3670 Jun 28 14:14	27° Π 15'05	2.44733 AU
max. Earth dist.	3665 Nov 24 13:28	13° J 14'08	2.52163 AU		3670 Jul 02 10:05	0° B	
	3665 Dec 18 10:13	0° B		morning rise	3670 Jul 12 22:40	7° B 29'23	
					3670 Aug 14 10:48	0° Ω	
conjunction	3665 Dec 28 15:02	7° B 19'11	0°-38'-15		3670 Sep 28 23:37	0° M	
minimum elong	3665 Dec 28 13:31	7° B 16'28	0°38'15		3670 Nov 16 15:12	0° Ω	
	3666 Jan 28 11:49	0° \approx			3671 Jan 10 06:35	0° M	
morning rise	3666 Feb 21 13:42	18° \approx 11'38		retrograde	3671 Mar 26 04:02	23° M 01'06	
	3666 Mar 08 22:46	0° H		opposition	3671 May 03 18:07	14° M 16'33	1°29'10
	3666 Apr 16 11:48	0° Y		greatest brilliancy	3671 May 04 03:58	14° M 07'04	-1.4m
	3666 May 24 22:48	0° B		min. Earth dist.	3671 May 08 21:14	12° M 18'06	0.63001 AU
	3666 Jul 03 06:13	0° Π		desc. node	3671 Jun 11 23:17	4° M 19'27	
	3666 Aug 13 12:04	0° B		direct	3671 Jun 14 03:07	4° M 17'40	
asc. node	3666 Aug 25 08:20	8° B 13'51			3671 Aug 29 11:24	0° J	
	3666 Sep 27 07:50	0° Ω			3671 Oct 16 22:53	0° B	
	3666 Nov 19 17:57	0° M			3671 Nov 28 02:46	0° \approx	
retrograde	3667 Jan 15 00:45	15° M 38'46			3672 Jan 06 12:04	0° H	
min. Earth dist.	3667 Feb 21 18:43	6° M 43'47	0.65866 AU		3672 Feb 13 19:31	0° Y	
opposition	3667 Feb 24 07:53	5° M 42'38	4°35'26		3672 Mar 23 06:26	0° B	
greatest brilliancy	3667 Feb 23 18:12	5° M 56'19	-1.3m	asc. node	3672 Apr 16 05:27	18° B 18'44	
	3667 Mar 11 23:10	30° R Ω			3672 May 01 19:27	0° Π	

evening set	3672 May 09 15:04	5°II47'27			3677 May 03 09:50	0°K		
	3672 Jun 12 02:04	0°G			3677 Jun 16 20:23	0°Y		
					3677 Aug 04 15:11	0°B		
conjunction	3672 Jul 07 12:28	17°G47'06	0°47'22	retrograde	3677 Oct 01 10:07	18°B42'16		
minimum elong	3672 Jul 07 10:34	17°G43'49	0°47'22	min. Earth dist.	3677 Oct 27 19:31	14°B11'01	0.39830 AU	
	3672 Jul 25 09:56	0°Q		opposition	3677 Nov 03 10:14	12°B11'02	-2°-14'-3	
max. Earth dist.	3672 Aug 05 22:45	7°Q45'14	2.57351 AU	greatest brilliancy	3677 Nov 02 17:37	12°B23'41	-2.7m	
morning rise	3672 Aug 29 01:00	23°Q01'08		direct	3677 Dec 03 19:40	6°B40'32		
	3672 Sep 08 18:20	0°M		asc. node	3677 Dec 07 02:15	6°B44'49		
	3672 Oct 25 23:03	0°A			3678 Feb 12 15:29	0°II		
	3672 Dec 14 03:11	0°M			3678 Apr 06 10:11	0°G		
	3673 Feb 04 23:07	0°J			3678 May 25 20:17	0°Q		
	3673 Apr 17 09:14	0°Z			3678 Jul 13 12:59	0°M		
desc. node	3673 Apr 28 22:29	2°Z05'58			3678 Aug 30 16:40	0°A		
retrograde	3673 May 09 22:43	2°Z48'14		evening set	3678 Sep 17 13:22	11°A16'15		
	3673 May 31 03:13	30°RJ			3678 Oct 16 20:27	0°M		
opposition	3673 Jun 14 11:55	25°J25'46	-2°-5'-35	max. Earth dist.	3678 Oct 17 04:10	0°M12'28	2.64803 AU	
greatest brilliancy	3673 Jun 15 09:51	25°J06'13	-2.0m					
min. Earth dist.	3673 Jun 22 16:38	22°J30'40	0.52216 AU	conjunction	3678 Nov 01 19:20	10°M21'19	0°25'56	
direct	3673 Jul 23 14:35	16°J24'14		minimum elong	3678 Nov 01 20:07	10°M22'35	0°25'56	
	3673 Sep 11 00:22	0°Z			3678 Dec 01 13:00	0°J		
	3673 Oct 31 13:23	0°≈		morning rise	3678 Dec 16 23:30	10°J23'30		
	3673 Dec 12 12:32	0°K		desc. node	3678 Dec 19 19:42	12°J19'12		
	3674 Jan 21 05:22	0°Y			3679 Jan 14 13:04	0°Z		
	3674 Mar 01 18:12	0°B			3679 Feb 25 21:35	0°≈		
asc. node	3674 Mar 04 04:13	1°B48'58			3679 Apr 07 21:05	0°K		
	3674 Apr 11 07:10	0°II			3679 May 17 23:20	0°Y		
	3674 May 23 11:51	0°G			3679 Jun 27 01:27	0°B		
evening set	3674 Jul 01 21:02	26°G52'07			3679 Aug 07 18:36	0°II		
	3674 Jul 06 13:28	0°Q			3679 Sep 24 09:40	0°G		
				asc. node	3679 Oct 25 02:26	14°G07'21		
conjunction	3674 Aug 20 23:49	29°Q48'35	1°08'08	retrograde	3679 Nov 23 20:55	19°G47'55		
minimum elong	3674 Aug 20 23:37	29°Q48'16	1°08'08	min. Earth dist.	3679 Dec 24 13:04	13°G20'37	0.52722 AU	
	3674 Aug 21 06:53	0°M		greatest brilliancy	3679 Dec 30 20:00	10°G57'54	-2.0m	
max. Earth dist.	3674 Sep 01 14:52	7°M18'15	2.65263 AU	opposition	3680 Jan 01 03:22	10°G28'07	3°13'54	
morning rise	3674 Oct 06 08:21	29°M28'31		direct	3680 Feb 05 05:28	2°G44'11		
	3674 Oct 07 04:11	0°A			3680 Apr 27 10:24	0°Q		
	3674 Nov 23 16:55	0°M			3680 Jun 21 02:02	0°M		
	3675 Jan 10 17:04	0°J			3680 Aug 10 12:42	0°A		
	3675 Feb 28 17:21	0°Z			3680 Sep 27 12:02	0°M		
desc. node	3675 Mar 16 21:54	9°Z37'21		evening set	3680 Oct 24 02:01	17°M17'05		
	3675 Apr 21 22:23	0°≈		desc. node	3680 Nov 05 18:09	25°M42'25		
retrograde	3675 Jul 15 13:51	29°≈29'02		max. Earth dist.	3680 Nov 11 17:29	29°M43'12	2.56624 AU	
opposition	3675 Aug 15 09:03	24°≈12'53	-6°-29'-9		3680 Nov 12 03:27	0°J		
greatest brilliancy	3675 Aug 17 01:44	23°≈44'01	-2.7m					
min. Earth dist.	3675 Aug 21 03:09	22°≈35'24	0.39524 AU	conjunction	3680 Dec 10 16:34	19°J34'44	0°-19'-48	
direct	3675 Sep 16 17:56	18°≈14'22		minimum elong	3680 Dec 10 15:47	19°J33'22	0°19'48	
	3675 Oct 31 03:11	0°K			3680 Dec 25 12:08	0°Z		
	3675 Dec 21 12:53	0°Y		morning rise	3681 Jan 30 09:09	25°Z58'12		
asc. node	3676 Jan 20 02:03	19°Y53'35			3681 Feb 04 19:52	0°≈		
	3676 Feb 03 18:25	0°B			3681 Mar 16 13:56	0°K		
	3676 Mar 18 06:00	0°II			3681 Apr 24 09:40	0°Y		
	3676 May 01 13:14	0°G			3681 Jun 02 02:28	0°B		
	3676 Jun 16 02:58	0°Q			3681 Jul 11 16:24	0°II		
	3676 Aug 01 18:58	0°M			3681 Aug 22 11:10	0°G		
evening set	3676 Aug 11 11:35	6°M10'21		asc. node	3681 Sep 11 00:37	13°G09'29		
	3676 Sep 17 23:43	0°A			3681 Oct 07 23:39	0°Q		
max. Earth dist.	3676 Sep 23 18:07	3°A39'55	2.67773 AU		3681 Dec 15 03:11	0°M		
				retrograde	3682 Jan 01 07:32	1°M51'22		
conjunction	3676 Sep 26 13:18	5°A26'43	0°57'50		3682 Jan 17 16:39	30°RQ		
minimum elong	3676 Sep 26 14:17	5°A28'16	0°57'49	min. Earth dist.	3682 Feb 06 07:42	23°Q30'43	0.63341 AU	
	3676 Nov 04 00:25	0°M		greatest brilliancy	3682 Feb 09 11:23	22°Q15'18	-1.4m	
morning rise	3676 Nov 09 17:33	3°M40'11		opposition	3682 Feb 10 09:03	21°Q53'40	4°37'06	
	3676 Dec 20 08:31	0°J		direct	3682 Mar 21 00:39	12°Q49'29		
desc. node	3677 Jan 31 20:57	28°J03'19			3682 May 22 20:59	0°M		
	3677 Feb 03 18:59	0°Z			3682 Jul 19 22:20	0°A		
	3677 Mar 20 08:56	0°≈			3682 Sep 08 03:32	0°M		

desc. node	3682 Sep 23 16:47	9°♌50'36		minimum elong	3687 Jun 17 10:40	27°♊55'19	0°28'12
	3682 Oct 24 09:49	0°♊			3687 Jun 20 08:27	0°♊	
evening set	3682 Dec 06 13:54	29°♊57'01		max. Earth dist.	3687 Jul 25 04:08	24°♊19'50	2.52873 AU
	3682 Dec 06 15:34	0°♊			3687 Aug 02 11:49	0°♊	
max. Earth dist.	3682 Dec 21 06:51	10°♊34'39	2.44269 AU	morning rise	3687 Aug 13 00:52	7°♊06'29	
	3683 Jan 16 11:36	0°♊			3687 Sep 16 19:33	0°♊	
					3687 Nov 03 08:31	0°♊	
conjunction	3683 Jan 30 16:27	10°♊45'56	-1°00'-54		3687 Dec 23 19:40	0°♊	
minimum elong	3683 Jan 30 15:00	10°♊43'10	1°00'54		3688 Feb 19 16:48	0°♊	
	3683 Feb 24 14:58	0°♊		retrograde	3688 Apr 20 09:22	16°♊16'13	
greatest brilliancy	3683 Mar 15 02:53	14°♊27'47	1.2m	desc. node	3688 May 15 13:38	12°♊19'52	
	3683 Apr 03 20:51	0°♊		opposition	3688 May 27 09:09	8°♊15'42	0°-29'-58
morning rise	3683 Apr 05 02:52	0°♊59'08		greatest brilliancy	3688 May 27 13:56	8°♊11'17	-1.7m
	3683 May 12 01:59	0°♊		min. Earth dist.	3688 Jun 03 14:23	5°♊35'02	0.57083 AU
	3683 Jun 20 03:49	0°♊			3688 Jun 22 16:42	30°♊	
asc. node	3683 Jul 29 23:19	29°♊16'28		direct	3688 Jul 06 18:54	28°♊40'00	
	3683 Jul 30 23:41	0°♊			3688 Jul 21 06:21	0°♊	
	3683 Sep 12 13:31	0°♊			3688 Sep 27 22:53	0°♊	
	3683 Oct 30 17:28	0°♊			3688 Nov 11 21:37	0°♊	
	3684 Jan 01 04:16	0°♊			3688 Dec 22 07:51	0°♊	
retrograde	3684 Feb 04 23:34	6°♊29'43			3689 Jan 30 05:42	0°♊	
	3684 Mar 07 22:47	30°♊			3689 Mar 10 04:22	0°♊	
opposition	3684 Mar 16 06:09	26°♊45'35	4°08'01	asc. node	3689 Mar 20 20:16	8°♊05'51	
greatest brilliancy	3684 Mar 16 04:46	26°♊46'59	-1.2m		3689 Apr 19 04:48	0°♊	
min. Earth dist.	3684 Mar 16 02:09	26°♊49'35	0.67795 AU		3689 May 30 22:27	0°♊	
direct	3684 Apr 26 01:20	16°♊58'36		evening set	3689 Jun 13 01:18	9°♊09'03	
	3684 Jun 18 05:50	0°♊			3689 Jul 13 15:08	0°♊	
desc. node	3684 Aug 10 16:01	26°♊54'13					
	3684 Aug 16 01:19	0°♊		conjunction	3689 Aug 04 22:40	14°♊50'41	1°04'28
	3684 Oct 03 10:33	0°♊		minimum elong	3689 Aug 04 21:45	14°♊49'10	1°04'28
	3684 Nov 16 05:00	0°♊		max. Earth dist.	3689 Aug 23 00:32	26°♊40'38	2.62806 AU
	3684 Dec 26 23:42	0°♊			3689 Aug 28 03:20	0°♊	
evening set	3685 Feb 01 14:58	28°♊13'50		morning rise	3689 Sep 22 02:55	16°♊04'11	
	3685 Feb 03 21:14	0°♊			3689 Oct 14 01:12	0°♊	
	3685 Mar 13 21:40	0°♊			3689 Dec 01 00:23	0°♊	
					3690 Jan 19 05:57	0°♊	
conjunction	3685 Apr 10 05:15	21°♊33'30	0°-42'-14		3690 Mar 12 10:46	0°♊	
minimum elong	3685 Apr 10 08:37	21°♊40'06	0°42'13	desc. node	3690 Apr 02 12:25	11°♊00'47	
	3685 Apr 20 23:57	0°♊			3690 May 18 15:38	0°♊	
max. Earth dist.	3685 May 29 06:55	29°♊25'32	2.39379 AU	retrograde	3690 Jun 16 03:25	4°♊25'39	
	3685 May 30 01:12	0°♊			3690 Jul 13 09:10	30°♊	
asc. node	3685 Jun 15 23:06	12°♊37'56		opposition	3690 Jul 18 20:51	28°♊18'07	-4°-59'-30
morning rise	3685 Jun 19 00:07	14°♊52'43		greatest brilliancy	3690 Jul 20 18:46	27°♊41'22	-2.4m
	3685 Jul 09 19:04	0°♊		min. Earth dist.	3690 Jul 26 22:07	25°♊44'41	0.44072 AU
	3685 Aug 21 19:15	0°♊		direct	3690 Aug 23 10:43	20°♊53'18	
	3685 Oct 06 14:59	0°♊			3690 Sep 30 21:02	0°♊	
	3685 Nov 25 12:31	0°♊			3690 Nov 22 10:41	0°♊	
	3686 Jan 25 17:59	0°♊			3691 Jan 04 08:05	0°♊	
retrograde	3686 Mar 11 04:49	9°♊39'49		asc. node	3691 Feb 05 19:59	23°♊34'53	
opposition	3686 Apr 19 12:17	0°♊33'41	2°27'31		3691 Feb 14 16:11	0°♊	
greatest brilliancy	3686 Apr 19 23:03	0°♊23'10	-1.3m		3691 Mar 28 12:11	0°♊	
	3686 Apr 20 22:46	30°♊			3691 May 10 17:03	0°♊	
min. Earth dist.	3686 Apr 23 04:36	29°♊07'30	0.65634 AU		3691 Jun 24 12:40	0°♊	
direct	3686 May 31 01:34	20°♊31'11		evening set	3691 Jul 28 03:53	21°♊54'31	
desc. node	3686 Jun 28 15:14	25°♊00'06			3691 Aug 09 17:29	0°♊	
	3686 Jul 13 07:06	0°♊					
	3686 Sep 09 23:34	0°♊		conjunction	3691 Sep 13 09:12	22°♊08'37	1°04'48
	3686 Oct 26 00:47	0°♊		minimum elong	3691 Sep 13 09:52	22°♊09'41	1°04'47
	3686 Dec 06 11:43	0°♊		max. Earth dist.	3691 Sep 15 21:58	23°♊45'19	2.67437 AU
	3687 Jan 14 14:01	0°♊			3691 Sep 25 17:36	0°♊	
	3687 Feb 21 17:01	0°♊		morning rise	3691 Oct 28 00:57	20°♊32'48	
	3687 Mar 31 23:27	0°♊			3691 Nov 11 20:56	0°♊	
evening set	3687 Apr 14 22:36	10°♊46'34			3691 Dec 28 16:43	0°♊	
asc. node	3687 May 03 21:13	25°♊10'55			3692 Feb 13 02:40	0°♊	
	3687 May 10 07:16	0°♊		desc. node	3692 Feb 18 11:48	3°♊29'19	
					3692 Mar 30 09:28	0°♊	
conjunction	3687 Jun 17 12:26	27°♊58'29	0°28'14		3692 May 16 10:52	0°♊	

	3692 Jul 07 03:31	0°♄			3697 Sep 15 14:05	0°♍		
retrograde	3692 Sep 03 01:05	17°♄43'29		desc. node	3697 Oct 10 08:09	15°♍55'51		
min. Earth dist.	3692 Oct 01 06:17	13°♄07'18	0.37267 AU		3697 Oct 31 12:38	0°♁		
opposition	3692 Oct 03 16:08	12°♄28'21	-5°-14'-25	evening set	3697 Nov 18 11:19	12°♁14'19		
greatest brilliancy	3692 Oct 03 07:15	12°♄34'20	-2.9m	max. Earth dist.	3697 Dec 02 22:33	22°♁19'31	2.49420 AU	
direct	3692 Nov 02 00:49	7°♄33'51			3697 Dec 13 18:27	0°♂		
asc. node	3692 Dec 23 18:57	22°♄00'11						
	3693 Jan 08 11:09	0°♂		conjunction	3698 Jan 08 19:35	18°♂53'51	0°-47'-57	
	3693 Feb 28 06:51	0°♂		minimum elong	3698 Jan 08 17:48	18°♂50'35	0°47'57	
	3693 Apr 16 20:13	0°♂			3698 Jan 23 18:11	0°≈		
	3693 Jun 03 04:56	0°♂			3698 Mar 04 02:19	0°♁		
	3693 Jul 20 21:25	0°♁		morning rise	3698 Mar 07 20:26	2°♁54'35		
evening set	3693 Sep 03 08:27	27°♁58'00			3698 Apr 11 12:36	0°♄		
	3693 Sep 06 13:42	0°♂			3698 May 19 21:02	0°♂		
max. Earth dist.	3693 Oct 08 00:34	19°♂59'14	2.66605 AU		3698 Jun 28 01:28	0°♂		
					3698 Aug 08 01:59	0°♂		
conjunction	3693 Oct 18 14:07	26°♂45'47	0°40'23	asc. node	3698 Aug 15 15:38	5°♂19'50		
minimum elong	3693 Oct 18 15:08	26°♂47'26	0°40'22		3698 Sep 21 06:18	0°♂		
	3693 Oct 23 14:47	0°♍			3698 Nov 10 20:40	0°♁		
morning rise	3693 Dec 01 23:15	25°♍40'34		retrograde	3699 Jan 22 17:12	23°♁39'15		
	3693 Dec 08 11:53	0°♁		min. Earth dist.	3699 Mar 02 08:43	14°♁26'53	0.66840 AU	
desc. node	3694 Jan 05 10:22	18°♁44'22		opposition	3699 Mar 04 01:11	13°♁46'25	4°28'35	
	3694 Jan 21 22:38	0°♂		greatest brilliancy	3699 Mar 03 16:07	13°♁55'30	-1.3m	
	3694 Mar 05 23:10	0°≈		direct	3699 Apr 13 03:54	4°♁12'52		
	3694 Apr 16 18:24	0°♁			3699 Jul 03 03:07	0°♂		
	3694 May 27 20:03	0°♄			3699 Aug 25 21:35	0°♍		
	3694 Jul 08 06:10	0°♂		desc. node	3699 Aug 28 07:17	1°♍27'09		
	3694 Aug 21 20:09	0°♂			3699 Oct 12 04:40	0°♁		
retrograde	3694 Nov 05 11:44	29°♂21'00			3699 Nov 24 16:14	0°♂		
asc. node	3694 Nov 10 17:50	29°♂08'44			3700 Jan 04 10:31	0°≈		
min. Earth dist.	3694 Dec 03 23:18	23°♂45'30	0.47438 AU	evening set	3700 Jan 08 14:29	3°≈09'16		
greatest brilliancy	3694 Dec 11 09:51	21°♂05'53	-2.3m		3700 Feb 12 09:25	0°♁		
opposition	3694 Dec 12 06:46	20°♂47'08	1°45'22	max. Earth dist.	3700 Feb 21 10:32	7°♁05'32	2.37219 AU	
direct	3695 Jan 14 12:38	13°♂50'03						
	3695 Mar 13 20:02	0°♂		conjunction	3700 Mar 12 16:42	22°♁16'48	-1°00'-46	
	3695 May 10 04:25	0°♂		minimum elong	3700 Mar 12 18:48	22°♁20'57	1°00'47	
	3695 Jun 30 13:23	0°♁			3700 Mar 22 11:02	0°♄		
	3695 Aug 18 20:37	0°♂			3700 Apr 29 13:20	0°♂		
	3695 Oct 05 10:02	0°♍		morning rise	3700 May 23 04:22	18°♂17'43		
evening set	3695 Oct 10 03:08	3°♍02'17			3700 Jun 07 13:24	0°♂		
max. Earth dist.	3695 Nov 01 16:33	17°♍46'27	2.60410 AU	asc. node	3700 Jul 03 14:09	19°♂21'55		
	3695 Nov 20 00:46	0°♁			3700 Jul 18 06:09	0°♂		
desc. node	3695 Nov 23 09:00	2°♁15'14			3700 Aug 30 08:11	0°♂		
					3700 Oct 15 16:23	0°♁		
conjunction	3695 Nov 25 08:56	3°♁36'15	0°-1'-8		3700 Dec 06 17:48	0°♂		
minimum elong	3695 Nov 25 08:52	3°♁36'08	0°01'09	retrograde	3701 Feb 26 03:52	26°♂51'17		
behind sun begin	3695 Nov 24 13:17	3°♁03'02		opposition	3701 Apr 06 23:45	17°♂27'44	3°14'23	
behind sun end	3695 Nov 26 04:26	4°♁09'14		greatest brilliancy	3701 Apr 07 07:36	17°♂20'00	-1.2m	
	3696 Jan 02 14:19	0°♂		min. Earth dist.	3701 Apr 09 04:23	16°♂35'52	0.67274 AU	
morning rise	3696 Jan 12 03:54	6°♂46'29		direct	3701 May 18 10:17	7°♂27'49		
	3696 Feb 13 06:20	0°≈		desc. node	3701 Jul 16 05:47	23°♂14'40		
	3696 Mar 24 09:52	0°♁			3701 Jul 30 07:30	0°♍		
	3696 May 02 14:49	0°♄			3701 Sep 20 13:25	0°♁		
	3696 Jun 10 16:19	0°♂			3701 Nov 04 09:06	0°♂		
	3696 Jul 20 17:09	0°♂			3701 Dec 15 11:14	0°≈		
	3696 Sep 01 11:51	0°♂			3702 Jan 23 10:19	0°♁		
asc. node	3696 Sep 27 17:41	16°♂36'57			3702 Mar 02 11:12	0°♄		
	3696 Oct 21 20:55	0°♂		greatest brilliancy	3702 Mar 05 16:57	2°♄33'42	1.2m	
retrograde	3696 Dec 17 22:38	17°♂01'41		evening set	3702 Mar 18 14:41	12°♄45'09		
min. Earth dist.	3697 Jan 20 23:47	9°♂20'49	0.59850 AU		3702 Apr 09 14:47	0°♂		
greatest brilliancy	3697 Jan 25 08:20	7°♂37'40	-1.6m		3702 May 18 18:34	0°♂		
opposition	3697 Jan 26 12:56	7°♂09'22	4°23'05	asc. node	3702 May 21 14:39	2°♂07'41		
	3697 Feb 17 22:18	30°♁♂						
direct	3697 Mar 04 23:31	28°♂30'48		conjunction	3702 May 25 07:28	4°♂53'41	0°02'31	
	3697 Mar 20 21:47	0°♂		minimum elong	3702 May 25 07:12	4°♂53'12	0°02'31	
	3697 Jun 04 18:24	0°♁		behind sun begin	3702 May 24 04:01	4°♂02'30		
	3697 Jul 28 12:05	0°♂		behind sun end	3702 May 26 10:23	5°♂43'50		

	3702 Jun 28 15:18	0°☿		opposition	3707 Sep 02 20:20	11°☿12'03	-6°-41'-54
max. Earth dist.	3702 Jul 10 15:20	8°☿32'04	2.47719 AU	greatest brilliancy	3707 Sep 03 22:23	10°☿54'28	-2.8m
morning rise	3702 Jul 25 23:28	19°☿15'23		min. Earth dist.	3707 Sep 06 03:26	10°☿18'42	0.37882 AU
	3702 Aug 10 15:23	0°♊		direct	3707 Oct 03 16:52	5°☿52'49	
	3702 Sep 25 00:30	0°♋			3707 Dec 10 23:35	0°♌	
	3702 Nov 12 02:54	0°♌		asc. node	3708 Jan 11 11:08	19°♌18'14	
	3703 Jan 03 16:38	0°♍			3708 Jan 27 21:17	0°♎	
	3703 Mar 20 04:28	0°♎			3708 Mar 12 20:47	0°♏	
retrograde	3703 Apr 05 05:51	1°♎28'00			3708 Apr 26 23:50	0°☿	
	3703 Apr 20 12:50	30°♏			3708 Jun 12 01:23	0°♊	
opposition	3703 May 13 08:02	22°♏57'32	0°49'22		3708 Jul 29 00:35	0°♋	
greatest brilliancy	3703 May 13 14:43	22°♏51'10	-1.5m	evening set	3708 Aug 20 22:09	14°♋30'51	
min. Earth dist.	3703 May 19 06:15	20°♏42'09	0.61137 AU		3708 Sep 14 08:42	0°♌	
desc. node	3703 Jun 03 04:17	15°♏46'01		max. Earth dist.	3708 Sep 29 22:05	9°♌53'01	2.67587 AU
direct	3703 Jun 23 11:24	13°♏03'50					
	3703 Aug 21 05:44	0°♎		conjunction	3708 Oct 05 13:47	13°♌29'03	0°52'16
	3703 Oct 11 14:15	0°♏		minimum elong	3708 Oct 05 14:51	13°♌30'44	0°52'14
	3703 Nov 23 11:49	0°♐			3708 Oct 31 09:11	0°♍	
	3704 Jan 02 04:09	0°♑		morning rise	3708 Nov 18 16:43	11°♍49'18	
	3704 Feb 09 15:44	0°♌			3708 Dec 16 12:56	0°♎	
	3704 Mar 19 05:52	0°♍		desc. node	3709 Jan 23 01:54	24°♎57'18	
asc. node	3704 Apr 07 13:35	14°♍45'08			3709 Jan 30 13:44	0°♏	
	3704 Apr 27 21:45	0°♐			3709 Mar 15 12:01	0°♐	
evening set	3704 May 23 19:42	18°♐56'57			3709 Apr 27 12:47	0°♑	
	3704 Jun 08 07:06	0°☿			3709 Jun 09 07:22	0°♌	
					3709 Jul 23 18:22	0°♍	
conjunction	3704 Jul 19 08:29	28°☿24'52	0°55'22		3709 Sep 18 23:36	0°♏	
minimum elong	3704 Jul 19 06:51	28°☿22'07	0°55'22	retrograde	3709 Oct 16 03:28	4°♏57'23	
	3704 Jul 21 16:45	0°♊		min. Earth dist.	3709 Nov 11 23:11	0°♏08'10	0.42275 AU
max. Earth dist.	3704 Aug 13 11:18	15°♊12'53	2.59501 AU		3709 Nov 12 09:29	30°♏	
	3704 Sep 05 01:13	0°♋		opposition	3709 Nov 19 17:41	27°♏36'19	0°-33'-7
morning rise	3704 Sep 08 02:27	1°♋58'40		greatest brilliancy	3709 Nov 19 11:52	27°♏41'04	-2.6m
	3704 Oct 22 01:49	0°♌		asc. node	3709 Nov 28 10:40	24°♏56'01	
	3704 Dec 09 16:42	0°♍		direct	3709 Dec 21 01:28	21°♏34'29	
	3705 Jan 29 19:53	0°♎			3710 Jan 29 04:10	0°♏	
	3705 Mar 29 23:13	0°♏			3710 Mar 30 17:54	0°☿	
desc. node	3705 Apr 20 03:09	7°♏54'25			3710 May 20 23:47	0°♊	
retrograde	3705 May 23 07:51	13°♏38'45			3710 Jul 09 10:49	0°♋	
opposition	3705 Jun 26 21:47	6°♏40'46	-3°-6'-56		3710 Aug 26 23:00	0°♌	
greatest brilliancy	3705 Jun 28 06:24	6°♏12'31	-2.1m	evening set	3710 Sep 26 16:12	19°♌22'40	
min. Earth dist.	3705 Jul 05 08:30	3°♏45'45	0.49335 AU		3710 Oct 13 06:02	0°♍	
	3705 Jul 18 10:46	30°♏		max. Earth dist.	3710 Oct 23 16:42	6°♍45'31	2.63470 AU
direct	3705 Aug 03 23:59	28°♏06'32					
	3705 Aug 20 20:26	0°♏		conjunction	3710 Nov 11 03:02	18°♍49'46	0°16'32
	3705 Oct 24 00:37	0°♐		minimum elong	3710 Nov 11 03:34	18°♍50'39	0°16'31
	3705 Dec 06 17:36	0°♑			3710 Nov 27 22:14	0°♎	
	3706 Jan 16 03:53	0°♌		desc. node	3710 Dec 11 00:45	8°♎50'12	
asc. node	3706 Feb 23 11:35	28°♌45'26		morning rise	3710 Dec 27 00:23	19°♎45'40	
	3706 Feb 25 03:37	0°♍			3711 Jan 10 18:35	0°♏	
	3706 Apr 07 00:37	0°♐			3711 Feb 21 21:01	0°♐	
	3706 May 19 11:53	0°☿			3711 Apr 03 12:30	0°♑	
	3706 Jul 02 18:21	0°♊			3711 May 13 05:40	0°♌	
evening set	3706 Jul 12 19:30	6°♊39'07			3711 Jun 21 20:17	0°♍	
	3706 Aug 17 14:49	0°♋			3711 Aug 01 16:45	0°♏	
					3711 Sep 15 14:25	0°☿	
conjunction	3706 Aug 30 17:15	8°♋26'00	1°08'06	asc. node	3711 Oct 16 08:49	17°☿00'20	
minimum elong	3706 Aug 30 17:26	8°♋26'18	1°08'06		3711 Nov 24 23:42	0°♊	
max. Earth dist.	3706 Sep 08 00:03	13°♋44'24	2.66266 AU	retrograde	3711 Dec 04 11:04	0°♊37'05	
	3706 Oct 03 12:09	0°♌			3711 Dec 13 16:50	30°♋	
morning rise	3706 Oct 15 07:48	7°♌30'12		min. Earth dist.	3712 Jan 05 08:54	23°☿41'43	0.55490 AU
	3706 Nov 19 20:28	0°♍		greatest brilliancy	3712 Jan 10 22:58	21°☿32'22	-1.8m
	3707 Jan 06 08:27	0°♎		opposition	3712 Jan 12 07:14	21°☿01'06	3°47'45
	3707 Feb 23 04:50	0°♏		direct	3712 Feb 17 07:28	12°☿55'03	
desc. node	3707 Mar 08 02:12	7°♏58'52			3712 Apr 18 22:33	0°♊	
	3707 Apr 13 10:35	0°♐			3712 Jun 16 00:31	0°♋	
	3707 Jun 07 11:12	0°♑			3712 Aug 06 10:07	0°♌	
retrograde	3707 Aug 03 18:32	16°♑11'05			3712 Sep 23 18:10	0°♍	

desc. node	3712 Oct 27 23:07	22° \mathbb{M} 16'03		max. Earth dist.	3717 Jun 18 23:59	17° \mathbb{H} 40'57	2.42276 AU
evening set	3712 Nov 02 23:07	26° \mathbb{M} 16'07		morning rise	3717 Jul 04 00:18	28° \mathbb{H} 35'34	
	3712 Nov 08 12:28	0° \mathbb{A}			3717 Jul 05 23:16	0° \mathbb{E}	
max. Earth dist.	3712 Nov 19 19:04	7° \mathbb{A} 39'09	2.54245 AU		3717 Aug 17 22:07	0° \mathbb{Q}	
					3717 Oct 02 11:48	0° \mathbb{M}	
conjunction	3712 Dec 21 14:59	29° \mathbb{A} 50'04	0°-30'-34		3717 Nov 20 12:12	0° \mathbb{L}	
minimum elong	3712 Dec 21 13:46	29° \mathbb{A} 47'54	0°30'33		3718 Jan 16 00:09	0° \mathbb{M}	
	3712 Dec 21 20:34	0° \mathbb{Z}		retrograde	3718 Mar 20 15:16	17° \mathbb{M} 42'07	
	3713 Feb 01 01:57	0° \mathbb{A}		opposition	3718 Apr 28 13:45	8° \mathbb{M} 47'30	1°54'48
morning rise	3713 Feb 12 11:18	8° \mathbb{A} 31'24		greatest brilliancy	3718 Apr 29 00:28	8° \mathbb{M} 37'06	-1.4m
	3713 Mar 12 16:35	0° \mathbb{H}		min. Earth dist.	3718 May 03 01:43	7° \mathbb{M} 02'54	0.64301 AU
	3713 Apr 20 08:41	0° \mathbb{Y}			3718 May 26 06:24	30° \mathbb{R} \mathbb{L}	
	3713 May 28 21:46	0° \mathbb{B}		direct	3718 Jun 09 01:30	28° \mathbb{L} 46'02	
	3713 Jul 07 06:37	0° \mathbb{H}		desc. node	3718 Jun 19 19:12	29° \mathbb{L} 28'15	
	3713 Aug 17 15:36	0° \mathbb{E}			3718 Jun 23 09:30	0° \mathbb{M}	
asc. node	3713 Sep 02 08:29	10° \mathbb{E} 48'18			3718 Sep 03 23:25	0° \mathbb{A}	
	3713 Oct 01 22:29	0° \mathbb{Q}			3718 Oct 21 08:16	0° \mathbb{Z}	
	3713 Nov 27 07:33	0° \mathbb{M}			3718 Dec 02 05:38	0° \mathbb{A}	
retrograde	3714 Jan 10 06:43	10° \mathbb{M} 19'51			3719 Jan 10 12:13	0° \mathbb{H}	
min. Earth dist.	3714 Feb 16 06:27	1° \mathbb{M} 39'16	0.64865 AU		3719 Feb 17 17:34	0° \mathbb{Y}	
opposition	3714 Feb 19 11:27	0° \mathbb{M} 22'17	4°38'00		3719 Mar 28 01:51	0° \mathbb{B}	
greatest brilliancy	3714 Feb 18 18:11	0° \mathbb{M} 39'34	-1.3m	asc. node	3719 Apr 25 05:51	21° \mathbb{B} 33'49	
	3714 Feb 20 09:46	30° \mathbb{R} \mathbb{Q}		evening set	3719 Apr 30 19:16	25° \mathbb{B} 45'09	
direct	3714 Mar 30 16:40	21° \mathbb{Q} 06'13			3719 May 06 11:19	0° \mathbb{H}	
	3714 May 12 09:51	0° \mathbb{M}			3719 Jun 16 14:07	0° \mathbb{E}	
	3714 Jul 14 17:50	0° \mathbb{L}					
	3714 Sep 03 23:51	0° \mathbb{M}		conjunction	3719 Jun 30 18:19	10° \mathbb{E} 00'46	0°40'04
desc. node	3714 Sep 14 21:55	6° \mathbb{M} 48'38		minimum elong	3719 Jun 30 16:20	9° \mathbb{E} 57'18	0°40'02
	3714 Oct 20 14:33	0° \mathbb{A}			3719 Jul 29 18:28	0° \mathbb{Q}	
	3714 Dec 02 22:33	0° \mathbb{Z}		max. Earth dist.	3719 Aug 02 17:20	2° \mathbb{Q} 40'31	2.55429 AU
evening set	3714 Dec 18 18:39	11° \mathbb{Z} 26'59		morning rise	3719 Aug 23 22:29	16° \mathbb{Q} 50'29	
max. Earth dist.	3715 Jan 05 15:56	24° \mathbb{Z} 40'17	2.41416 AU		3719 Sep 13 01:06	0° \mathbb{M}	
	3715 Jan 12 18:22	0° \mathbb{A}			3719 Oct 30 07:41	0° \mathbb{L}	
					3719 Dec 18 22:18	0° \mathbb{M}	
conjunction	3715 Feb 14 11:44	25° \mathbb{A} 03'13	-1°-4'-33		3720 Feb 11 08:10	0° \mathbb{A}	
minimum elong	3715 Feb 14 11:11	25° \mathbb{A} 02'09	1°04'33	retrograde	3720 May 02 04:26	25° \mathbb{A} 54'37	
	3715 Feb 20 20:19	0° \mathbb{H}		desc. node	3720 May 06 18:09	25° \mathbb{A} 46'58	
	3715 Mar 31 00:40	0° \mathbb{Y}		opposition	3720 Jun 07 09:40	18° \mathbb{A} 14'14	-1°-23'-7
morning rise	3715 Apr 23 08:22	18° \mathbb{Y} 22'37		greatest brilliancy	3720 Jun 07 23:47	18° \mathbb{A} 01'24	-1.8m
	3715 May 08 04:34	0° \mathbb{B}		min. Earth dist.	3720 Jun 15 04:43	15° \mathbb{A} 24'03	0.54466 AU
	3715 Jun 16 04:59	0° \mathbb{H}		direct	3720 Jul 17 03:40	8° \mathbb{A} 55'00	
asc. node	3715 Jul 21 08:02	25° \mathbb{H} 58'21			3720 Sep 19 15:47	0° \mathbb{Z}	
	3715 Jul 26 22:21	0° \mathbb{E}			3720 Nov 06 03:22	0° \mathbb{A}	
	3715 Sep 08 05:24	0° \mathbb{Q}			3720 Dec 17 08:32	0° \mathbb{H}	
	3715 Oct 25 11:01	0° \mathbb{M}			3721 Jan 25 15:59	0° \mathbb{Y}	
	3715 Dec 20 21:18	0° \mathbb{L}			3721 Mar 05 21:32	0° \mathbb{B}	
retrograde	3716 Feb 13 15:16	14° \mathbb{L} 13'31		asc. node	3721 Mar 12 04:56	4° \mathbb{B} 46'10	
opposition	3716 Mar 24 19:07	4° \mathbb{L} 35'51	3°51'07		3721 Apr 15 03:27	0° \mathbb{H}	
greatest brilliancy	3716 Mar 24 21:30	4° \mathbb{L} 33'28	-1.2m		3721 May 27 01:41	0° \mathbb{E}	
min. Earth dist.	3716 Mar 25 11:25	4° \mathbb{L} 19'39	0.67890 AU	evening set	3721 Jun 24 23:50	19° \mathbb{E} 56'08	
	3716 Apr 05 20:45	30° \mathbb{R} \mathbb{M}			3721 Jul 09 21:51	0° \mathbb{Q}	
direct	3716 May 04 21:03	24° \mathbb{M} 43'02					
	3716 Jun 05 16:35	0° \mathbb{L}		conjunction	3721 Aug 15 05:51	23° \mathbb{Q} 59'34	1°07'10
desc. node	3716 Aug 01 21:02	25° \mathbb{L} 10'12		minimum elong	3721 Aug 15 05:22	23° \mathbb{Q} 58'47	1°07'11
	3716 Aug 10 16:15	0° \mathbb{M}			3721 Aug 24 11:48	0° \mathbb{M}	
	3716 Sep 29 03:40	0° \mathbb{A}		max. Earth dist.	3721 Aug 29 16:58	3° \mathbb{M} 22'24	2.64266 AU
	3716 Nov 12 06:17	0° \mathbb{Z}		morning rise	3721 Oct 01 07:56	24° \mathbb{M} 16'23	
	3716 Dec 23 03:40	0° \mathbb{A}			3721 Oct 10 08:24	0° \mathbb{L}	
	3717 Jan 31 01:35	0° \mathbb{H}			3721 Nov 27 00:59	0° \mathbb{M}	
evening set	3717 Feb 17 23:59	14° \mathbb{H} 06'47			3722 Jan 14 12:18	0° \mathbb{A}	
	3717 Mar 10 01:49	0° \mathbb{Y}			3722 Mar 05 15:28	0° \mathbb{Z}	
	3717 Apr 17 04:03	0° \mathbb{B}		desc. node	3722 Mar 24 18:00	10° \mathbb{Z} 52'26	
					3722 Apr 30 10:40	0° \mathbb{A}	
conjunction	3717 Apr 27 18:46	8° \mathbb{B} 15'11	0°-26'-48	retrograde	3722 Jul 03 02:48	18° \mathbb{A} 25'54	
minimum elong	3717 Apr 27 21:14	8° \mathbb{B} 19'57	0°26'47	opposition	3722 Aug 03 18:30	12° \mathbb{A} 48'14	-5°-56'-50
	3717 May 26 05:24	0° \mathbb{H}		greatest brilliancy	3722 Aug 05 16:55	12° \mathbb{A} 13'26	-2.6m
asc. node	3717 Jun 07 06:32	9° \mathbb{H} 01'15		min. Earth dist.	3722 Aug 10 21:30	10° \mathbb{A} 41'06	0.41368 AU

direct	3722 Sep 06 14:01	6° \approx 11'19		desc. node	3727 Nov 14 13:56	28° \mathbb{M} 46'02	
	3722 Nov 12 07:44	0° \mathbb{H}			3727 Nov 16 09:57	0° \mathbb{Z}	
	3722 Dec 28 10:37	0° \mathbb{Y}					
asc. node	3723 Jan 28 02:46	21° \mathbb{Y} 30'56		conjunction	3727 Dec 05 11:59	12° \mathbb{Z} 59'00	0°-11'-53
	3723 Feb 09 02:15	0° \mathbb{B}		minimum elong	3727 Dec 05 11:31	12° \mathbb{Z} 58'13	0°11'53
	3723 Mar 23 16:58	0° \mathbb{II}		behind sun begin	3727 Dec 04 21:38	12° \mathbb{Z} 34'21	
	3723 May 06 10:19	0° \mathbb{S}		behind sun end	3727 Dec 06 01:25	13° \mathbb{Z} 22'05	
	3723 Jun 20 14:30	0° \mathbb{Q}			3727 Dec 29 21:49	0° \mathbb{Z}	
	3723 Aug 06 00:38	0° \mathbb{M}		morning rise	3728 Jan 23 17:46	17° \mathbb{Z} 47'17	
evening set	3723 Aug 07 00:33	0° \mathbb{M} 38'16			3728 Feb 09 10:07	0° \approx	
					3728 Mar 20 08:50	0° \mathbb{H}	
conjunction	3723 Sep 22 12:51	0° \mathbb{A} 15'59	1°01'08		3728 Apr 28 08:38	0° \mathbb{Y}	
minimum elong	3723 Sep 22 13:44	0° \mathbb{A} 17'23	1°01'08		3728 Jun 06 04:47	0° \mathbb{B}	
max. Earth dist.	3723 Sep 22 01:37	29° \mathbb{M} 58'08	2.67731 AU		3728 Jul 15 21:54	0° \mathbb{II}	
	3723 Sep 22 02:48	0° \mathbb{A}			3728 Aug 26 23:22	0° \mathbb{S}	
morning rise	3723 Nov 05 20:44	28° \mathbb{A} 30'28		asc. node	3728 Sep 19 01:09	15° \mathbb{S} 13'42	
	3723 Nov 08 04:42	0° \mathbb{M}			3728 Oct 13 13:11	0° \mathbb{Q}	
	3723 Dec 24 18:02	0° \mathbb{Z}		retrograde	3728 Dec 27 07:39	26° \mathbb{Q} 07'58	
	3724 Feb 08 14:28	0° \mathbb{Z}		min. Earth dist.	3729 Jan 31 11:10	18° \mathbb{Q} 04'02	0.61897 AU
desc. node	3724 Feb 09 16:55	0° \mathbb{Z} 43'35		greatest brilliancy	3729 Feb 04 03:14	16° \mathbb{Q} 36'31	-1.5m
	3724 Mar 24 20:52	0° \approx		opposition	3729 Feb 05 04:13	16° \mathbb{Q} 11'37	4°33'40
	3724 May 08 23:40	0° \mathbb{H}		direct	3729 Mar 15 06:55	7° \mathbb{Q} 18'03	
	3724 Jun 24 11:48	0° \mathbb{Y}			3729 May 28 20:52	0° \mathbb{M}	
	3724 Aug 21 01:12	0° \mathbb{B}			3729 Jul 23 20:39	0° \mathbb{A}	
retrograde	3724 Sep 20 17:02	5° \mathbb{B} 57'35			3729 Sep 11 14:51	0° \mathbb{M}	
min. Earth dist.	3724 Oct 17 10:16	1° \mathbb{B} 31'26	0.38321 AU	desc. node	3729 Oct 01 12:37	12° \mathbb{M} 40'52	
opposition	3724 Oct 22 11:22	0° \mathbb{B} 05'15	-3°-36'-3		3729 Oct 27 19:13	0° \mathbb{Z}	
greatest brilliancy	3724 Oct 21 17:46	0° \mathbb{B} 17'50	-2.8m	evening set	3729 Nov 29 12:35	22° \mathbb{Z} 30'20	
	3724 Oct 22 18:42	30° \mathbb{R} \mathbb{Y}			3729 Dec 10 02:19	0° \mathbb{Z}	
direct	3724 Nov 21 05:19	24° \mathbb{Y} 56'06		max. Earth dist.	3729 Dec 13 14:51	2° \mathbb{Z} 31'12	2.46606 AU
asc. node	3724 Dec 15 02:33	28° \mathbb{Y} 27'29			3730 Jan 20 01:10	0° \approx	
	3724 Dec 20 05:51	0° \mathbb{B}					
	3725 Feb 20 10:04	0° \mathbb{II}		conjunction	3730 Jan 21 18:57	1° \approx 18'27	0°-56'-10
	3725 Apr 11 08:15	0° \mathbb{S}		minimum elong	3730 Jan 21 17:12	1° \approx 15'10	0°56'11
	3725 May 29 17:36	0° \mathbb{Q}			3730 Feb 28 07:17	0° \mathbb{H}	
	3725 Jul 16 22:40	0° \mathbb{M}		morning rise	3730 Mar 24 06:47	18° \mathbb{H} 43'25	
	3725 Sep 02 21:09	0° \mathbb{A}			3730 Apr 07 15:12	0° \mathbb{Y}	
evening set	3725 Sep 12 12:17	6° \mathbb{A} 04'31		greatest brilliancy	3730 May 05 06:23	21° \mathbb{Y} 42'10	1.2m
max. Earth dist.	3725 Oct 14 08:06	26° \mathbb{A} 20'58	2.65717 AU		3730 May 15 21:26	0° \mathbb{B}	
	3725 Oct 20 00:13	0° \mathbb{M}			3730 Jun 23 23:23	0° \mathbb{II}	
					3730 Aug 03 19:28	0° \mathbb{S}	
conjunction	3725 Oct 27 16:31	4° \mathbb{M} 57'50	0°32'15	asc. node	3730 Aug 06 23:33	2° \mathbb{S} 15'20	
minimum elong	3725 Oct 27 17:26	4° \mathbb{M} 59'19	0°32'14		3730 Sep 16 12:36	0° \mathbb{Q}	
	3725 Dec 04 19:29	0° \mathbb{Z}			3730 Nov 04 09:06	0° \mathbb{M}	
morning rise	3725 Dec 11 10:14	4° \mathbb{Z} 25'05			3731 Jan 15 07:41	0° \mathbb{A}	
desc. node	3725 Dec 27 15:19	15° \mathbb{Z} 20'55		retrograde	3731 Jan 31 08:59	1° \mathbb{A} 32'23	
	3726 Jan 18 00:52	0° \mathbb{Z}			3731 Feb 15 15:09	30° \mathbb{R} \mathbb{M}	
	3726 Mar 01 16:58	0° \approx		opposition	3731 Mar 12 16:16	21° \mathbb{M} 43'58	4°17'53
	3726 Apr 12 01:08	0° \mathbb{H}		greatest brilliancy	3731 Mar 12 11:36	21° \mathbb{M} 48'37	-1.2m
	3726 May 22 12:50	0° \mathbb{Y}		min. Earth dist.	3731 Mar 11 20:16	22° \mathbb{M} 03'56	0.67492 AU
	3726 Jul 02 02:21	0° \mathbb{B}		direct	3731 Apr 22 04:05	12° \mathbb{M} 02'24	
	3726 Aug 13 15:52	0° \mathbb{II}			3731 Jun 25 18:24	0° \mathbb{A}	
	3726 Oct 03 20:42	0° \mathbb{S}		desc. node	3731 Aug 19 11:38	29° \mathbb{A} 00'54	
asc. node	3726 Nov 02 02:46	10° \mathbb{S} 12'37			3731 Aug 21 03:50	0° \mathbb{M}	
retrograde	3726 Nov 17 06:17	11° \mathbb{S} 48'22			3731 Oct 08 02:57	0° \mathbb{Z}	
min. Earth dist.	3726 Dec 16 21:46	5° \mathbb{S} 44'17	0.50385 AU		3731 Nov 20 19:47	0° \mathbb{Z}	
opposition	3726 Dec 24 22:04	2° \mathbb{S} 46'20	2°41'47		3731 Dec 31 15:35	0° \approx	
greatest brilliancy	3726 Dec 23 17:22	3° \mathbb{S} 13'00	-2.1m	evening set	3732 Jan 23 08:11	17° \approx 20'58	
	3727 Jan 01 17:44	30° \mathbb{R} \mathbb{II}			3732 Feb 08 14:27	0° \mathbb{H}	
direct	3727 Jan 28 05:40	25° \mathbb{II} 22'05			3732 Mar 17 15:33	0° \mathbb{Y}	
	3727 Feb 25 21:01	0° \mathbb{S}					
	3727 May 03 22:13	0° \mathbb{Q}		conjunction	3732 Mar 29 04:36	9° \mathbb{Y} 07'42	0°-51'-56
	3727 Jun 25 23:28	0° \mathbb{M}		minimum elong	3732 Mar 29 07:52	9° \mathbb{Y} 14'09	0°51'55
	3727 Aug 14 21:53	0° \mathbb{A}			3732 Apr 24 17:32	0° \mathbb{B}	
	3727 Oct 01 17:40	0° \mathbb{M}		max. Earth dist.	3732 May 03 11:45	6° \mathbb{B} 49'23	2.37476 AU
evening set	3727 Oct 19 14:16	11° \mathbb{M} 33'26			3732 Jun 02 17:21	0° \mathbb{II}	
max. Earth dist.	3727 Nov 08 22:17	24° \mathbb{M} 59'00	2.58411 AU	morning rise	3732 Jun 08 07:48	4° \mathbb{II} 13'12	

asc. node	3732 Jun 23 23:32	15° Π 52'06		direct	3737 Aug 15 03:54	10° Ξ 54'26	
	3732 Jul 13 09:14	0° Ξ			3737 Oct 13 00:54	0° \approx	
	3732 Aug 25 08:25	0° Ω			3737 Nov 29 03:18	0° H	
	3732 Oct 10 06:43	0° M			3738 Jan 09 16:51	0° Υ	
	3732 Nov 29 19:46	0° $\underline{\Delta}$		asc. node	3738 Feb 13 20:13	25° Υ 57'58	
	3733 Feb 04 17:30	0° M			3738 Feb 19 07:42	0° X	
retrograde	3733 Mar 06 03:07	4° M 37'20			3738 Apr 01 15:21	0° Π	
	3733 Apr 02 04:30	30° R $\underline{\Delta}$			3738 May 14 10:23	0° Ξ	
opposition	3733 Apr 14 16:38	25° $\underline{\Delta}$ 23'03	2°48'12		3738 Jun 27 22:42	0° Ω	
greatest brilliancy	3733 Apr 15 02:26	25° $\underline{\Delta}$ 13'26	-1.3m	evening set	3738 Jul 22 07:44	15° Ω 59'52	
min. Earth dist.	3733 Apr 17 17:18	24° $\underline{\Delta}$ 11'45	0.66488 AU		3738 Aug 12 22:42	0° M	
direct	3733 May 26 05:12	15° $\underline{\Delta}$ 20'54					
desc. node	3733 Jul 06 10:56	23° $\underline{\Delta}$ 58'39		conjunction	3738 Sep 08 05:07	16° M 50'15	1°06'38
	3733 Jul 21 02:55	0° M		minimum elong	3738 Sep 08 05:37	16° M 51'03	1°06'38
	3733 Sep 14 12:42	0° X		max. Earth dist.	3738 Sep 13 07:57	20° M 06'07	2.67021 AU
	3733 Oct 30 01:38	0° Ξ			3738 Sep 28 21:00	0° $\underline{\Delta}$	
	3733 Dec 10 09:42	0° \approx		morning rise	3738 Oct 23 05:13	15° $\underline{\Delta}$ 27'56	
	3734 Jan 18 11:04	0° H			3738 Nov 15 02:20	0° M	
	3734 Feb 25 13:03	0° Υ			3739 Jan 01 04:45	0° X	
evening set	3734 Apr 03 19:57	29° Υ 17'33			3739 Feb 17 04:24	0° Ξ	
	3734 Apr 04 17:47	0° X		desc. node	3739 Feb 26 07:41	5° Ξ 49'25	
asc. node	3734 May 11 21:54	28° X 27'57			3739 Apr 05 13:09	0° \approx	
	3734 May 13 22:54	0° Π			3739 May 24 22:11	0° H	
					3739 Jul 27 01:53	0° Υ	
conjunction	3734 Jun 08 10:30	18° Π 51'15	0°17'57	retrograde	3739 Aug 22 02:25	4° Υ 07'41	
minimum elong	3734 Jun 08 09:11	18° Π 48'51	0°17'57		3739 Sep 17 23:50	30° R H	
	3734 Jun 23 20:49	0° Ξ		opposition	3739 Sep 21 05:43	29° H 08'35	-6°-9'-54
max. Earth dist.	3734 Jul 19 21:56	18° Ξ 20'51	2.50645 AU	greatest brilliancy	3739 Sep 21 11:16	29° H 04'54	-2.9m
	3734 Aug 05 21:21	0° Ω		min. Earth dist.	3739 Sep 21 09:11	29° H 06'16	0.37121 AU
morning rise	3734 Aug 06 02:35	0° Ω 08'53		direct	3739 Oct 20 22:29	24° H 11'56	
	3734 Sep 20 03:59	0° M			3739 Nov 20 15:26	0° Υ	
	3734 Nov 06 20:39	0° $\underline{\Delta}$		asc. node	3740 Jan 01 19:36	20° Υ 13'33	
	3734 Dec 28 00:24	0° M			3740 Jan 18 10:00	0° X	
	3735 Feb 27 14:57	0° X			3740 Mar 05 21:40	0° Π	
retrograde	3735 Apr 14 18:45	10° X 12'26			3740 Apr 21 04:20	0° Ξ	
opposition	3735 May 22 07:00	1° X 57'44	0°05'10		3740 Jun 06 21:12	0° Ω	
greatest brilliancy	3734 Dec 20 03:36	25° $\underline{\Delta}$ 34'54	-3.1m		3740 Jul 24 04:55	0° M	
desc. node	3735 May 24 09:23	1° X 10'14		evening set	3740 Aug 29 05:41	22° M 44'18	
	3735 May 27 11:54	30° R M			3740 Sep 09 17:16	0° $\underline{\Delta}$	
min. Earth dist.	3735 May 28 22:42	29° M 27'31	0.59007 AU	max. Earth dist.	3740 Oct 05 04:31	16° $\underline{\Delta}$ 10'37	2.67153 AU
direct	3735 Jul 02 01:48	22° M 12'11					
	3735 Aug 08 10:24	0° X		conjunction	3740 Oct 13 14:25	21° $\underline{\Delta}$ 33'06	0°45'39
	3735 Oct 04 15:37	0° Ξ		minimum elong	3740 Oct 13 15:29	21° $\underline{\Delta}$ 34'48	0°45'38
	3735 Nov 17 14:48	0° \approx			3740 Oct 26 18:25	0° M	
	3735 Dec 27 16:52	0° H		morning rise	3740 Nov 26 19:10	20° M 08'22	
	3736 Feb 04 09:31	0° Υ			3740 Dec 11 18:55	0° X	
	3736 Mar 14 03:28	0° X		desc. node	3741 Jan 13 06:15	21° X 41'26	
asc. node	3736 Mar 28 20:24	11° X 12'32			3741 Jan 25 12:22	0° Ξ	
	3736 Apr 22 22:50	0° Π			3741 Mar 09 22:29	0° \approx	
	3736 Jun 03 11:17	0° Ξ			3741 Apr 21 05:56	0° H	
evening set	3736 Jun 05 05:18	1° Ξ 14'04			3741 Jun 01 22:42	0° Υ	
	3736 Jul 16 23:33	0° Ω			3741 Jul 14 08:02	0° X	
					3741 Aug 30 12:36	0° Π	
conjunction	3736 Jul 29 14:39	8° Ω 27'58	1°01'21	retrograde	3741 Oct 28 16:16	19° Π 44'58	
minimum elong	3736 Jul 29 13:25	8° Ω 25'54	1°01'21	asc. node	3741 Nov 18 18:14	16° Π 34'21	
max. Earth dist.	3736 Aug 19 16:10	22° Ω 22'32	2.61443 AU	min. Earth dist.	3741 Nov 25 06:30	14° Π 32'09	0.45058 AU
	3736 Aug 31 08:51	0° M		opposition	3741 Dec 03 13:56	11° Π 40'26	0°52'50
morning rise	3736 Sep 16 19:42	10° M 37'06		greatest brilliancy	3741 Dec 03 02:43	11° Π 50'06	-2.4m
	3736 Oct 17 06:55	0° $\underline{\Delta}$		direct	3742 Jan 04 22:54	5° Π 07'24	
	3736 Dec 04 11:42	0° M			3742 Mar 21 15:32	0° Ξ	
	3737 Jan 23 09:35	0° X			3742 May 14 17:44	0° Ω	
	3737 Mar 18 17:21	0° Ξ			3742 Jul 04 04:35	0° M	
desc. node	3737 Apr 10 08:13	10° Ξ 43'41			3742 Aug 22 03:16	0° $\underline{\Delta}$	
retrograde	3737 Jun 05 18:42	25° Ξ 53'31		evening set	3742 Oct 04 21:51	27° $\underline{\Delta}$ 37'32	
opposition	3737 Jul 09 09:01	18° Ξ 53'23	-4°-10'-58		3742 Oct 08 14:32	0° M	
greatest brilliancy	3737 Jul 11 02:34	18° Ξ 18'45	-2.3m	max. Earth dist.	3742 Oct 29 11:52	13° M 33'50	2.61875 AU
min. Earth dist.	3737 Jul 17 18:31	16° Ξ 06'32	0.46409 AU				

conjunction	3742 Nov 19 17:30	27° \mathbb{M} 37'13	0°06'29	asc. node	3747 Jul 11 14:44	22° \mathbb{I} 32'49	
minimum elong	3742 Nov 19 17:44	27° \mathbb{M} 37'37	0°06'28		3747 Jul 21 21:47	0° \mathfrak{S}	
behind sun begin	3742 Nov 18 23:43	27° \mathbb{M} 07'32			3747 Sep 03 00:00	0° \mathcal{O}	
behind sun end	3742 Nov 20 11:44	28° \mathbb{M} 07'43			3747 Oct 19 13:41	0° \mathfrak{M}	
	3742 Nov 23 06:47	0° \mathfrak{A}			3747 Dec 11 21:09	0° \mathfrak{L}	
desc. node	3742 Dec 01 04:47	5° \mathfrak{A} 19'57		retrograde	3748 Feb 21 08:51	21° \mathfrak{L} 56'02	
morning rise	3743 Jan 05 13:31	29° \mathfrak{A} 41'00		opposition	3748 Apr 01 08:32	12° \mathfrak{L} 25'49	3°30'45
	3743 Jan 06 00:21	0° \mathfrak{Z}		greatest brilliancy	3748 Apr 01 14:13	12° \mathfrak{L} 20'12	-1.2m
	3743 Feb 16 21:46	0° \approx		min. Earth dist.	3748 Apr 02 21:09	11° \mathfrak{L} 49'34	0.67683 AU
	3743 Mar 29 07:10	0° \mathfrak{H}		direct	3748 May 12 15:21	2° \mathfrak{L} 28'27	
	3743 May 07 17:25	0° \mathcal{Y}		desc. node	3748 Jul 23 01:52	24° \mathfrak{L} 04'47	
	3743 Jun 15 23:53	0° \mathfrak{B}			3748 Aug 03 15:14	0° \mathbb{M}	
	3743 Jul 26 06:55	0° \mathbb{I}			3748 Sep 23 15:21	0° \mathfrak{A}	
	3743 Sep 07 16:09	0° \mathfrak{S}			3748 Nov 07 04:57	0° \mathfrak{Z}	
asc. node	3743 Oct 06 17:45	17° \mathfrak{S} 39'48			3748 Dec 18 06:07	0° \approx	
	3743 Oct 31 07:04	0° \mathcal{O}			3749 Jan 26 05:23	0° \mathfrak{H}	
retrograde	3743 Dec 13 11:59	10° \mathcal{O} 40'17		evening set	3749 Mar 05 22:50	0° \mathcal{Y} 33'26	
min. Earth dist.	3744 Jan 15 14:31	3° \mathcal{O} 18'39	0.57996 AU		3749 Mar 05 05:57	0° \mathcal{Y}	
greatest brilliancy	3744 Jan 20 11:37	1° \mathcal{O} 23'58	-1.7m		3749 Apr 12 08:21	0° \mathfrak{B}	
opposition	3744 Jan 21 18:30	0° \mathcal{O} 53'36	4°11'33				
	3744 Jan 24 01:28	30° \mathfrak{R} \mathfrak{S}		conjunction	3749 May 13 16:09	24° \mathfrak{B} 08'22	0°-10'-3
direct	3744 Feb 27 13:59	22° \mathfrak{S} 28'34		minimum elong	3749 May 13 17:05	24° \mathfrak{B} 10'08	0°10'04
	3744 Apr 05 20:34	0° \mathcal{O}		behind sun begin	3749 May 12 18:37	23° \mathfrak{B} 27'28	
	3744 Jun 09 11:13	0° \mathfrak{M}		behind sun end	3749 May 14 15:33	24° \mathfrak{B} 52'45	
	3744 Aug 01 03:20	0° \mathfrak{L}			3749 May 21 10:04	0° \mathbb{I}	
	3744 Sep 18 22:24	0° \mathbb{M}		asc. node	3749 May 28 14:57	5° \mathbb{I} 24'29	
desc. node	3744 Oct 18 04:07	18° \mathbb{M} 53'57			3749 Jul 01 04:01	0° \mathfrak{S}	
	3744 Nov 03 20:15	0° \mathfrak{A}		max. Earth dist.	3749 Jul 02 07:25	0° \mathfrak{S} 49'10	2.45285 AU
evening set	3744 Nov 12 05:00	5° \mathfrak{A} 39'34		morning rise	3749 Jul 16 21:11	11° \mathfrak{S} 10'29	
max. Earth dist.	3744 Nov 27 12:36	16° \mathfrak{A} 11'13	2.51631 AU		3749 Aug 13 01:57	0° \mathcal{O}	
	3744 Dec 17 04:17	0° \mathfrak{Z}			3749 Sep 27 11:03	0° \mathfrak{M}	
					3749 Nov 14 20:00	0° \mathfrak{L}	
conjunction	3745 Jan 01 05:45	10° \mathfrak{Z} 49'07	0°-40'-54		3750 Jan 07 14:45	0° \mathbb{M}	
minimum elong	3745 Jan 01 04:10	10° \mathfrak{Z} 46'15	0°40'54	retrograde	3750 Mar 29 09:35	25° \mathbb{M} 55'59	
	3745 Jan 27 07:25	0° \approx		opposition	3750 May 06 21:19	17° \mathbb{M} 14'11	1°18'13
morning rise	3745 Feb 25 18:24	22° \approx 17'26		greatest brilliancy	3750 May 07 06:23	17° \mathbb{M} 05'28	-1.5m
	3745 Mar 07 19:04	0° \mathfrak{H}		min. Earth dist.	3750 May 12 04:29	15° \mathbb{M} 11'59	0.62673 AU
	3745 Apr 15 08:02	0° \mathcal{Y}		desc. node	3750 Jun 10 00:06	7° \mathbb{M} 36'12	
	3745 May 23 18:10	0° \mathfrak{B}		direct	3750 Jun 17 05:10	7° \mathbb{M} 15'48	
	3745 Jul 01 23:38	0° \mathbb{I}			3750 Aug 26 22:01	0° \mathfrak{A}	
	3745 Aug 12 01:45	0° \mathfrak{S}			3750 Oct 15 07:40	0° \mathfrak{Z}	
asc. node	3745 Aug 23 16:26	8° \mathfrak{S} 06'58			3750 Nov 26 18:48	0° \approx	
	3745 Sep 25 13:19	0° \mathcal{O}			3751 Jan 05 07:17	0° \mathfrak{H}	
	3745 Nov 16 16:34	0° \mathfrak{M}			3751 Feb 12 15:55	0° \mathcal{Y}	
retrograde	3746 Jan 18 01:15	18° \mathfrak{M} 30'44			3751 Mar 23 02:47	0° \mathfrak{B}	
min. Earth dist.	3746 Feb 24 23:20	9° \mathfrak{M} 31'46	0.66081 AU	asc. node	3751 Apr 15 14:18	17° \mathfrak{B} 57'59	
opposition	3746 Feb 27 07:48	8° \mathfrak{M} 35'14	4°34'06		3751 May 01 14:48	0° \mathbb{I}	
greatest brilliancy	3746 Feb 26 19:08	8° \mathfrak{M} 47'56	-1.3m	evening set	3751 May 14 17:52	9° \mathbb{I} 42'41	
	3746 Mar 27 12:29	30° \mathfrak{R} \mathcal{O}			3751 Jun 11 19:45	0° \mathfrak{S}	
direct	3746 Apr 08 00:56	29° \mathcal{O} 08'56					
	3746 Apr 20 03:09	0° \mathfrak{M}		conjunction	3751 Jul 12 04:17	21° \mathfrak{S} 12'32	0°49'41
	3746 Jul 08 00:21	0° \mathfrak{L}		minimum elong	3751 Jul 12 02:25	21° \mathfrak{S} 09'20	0°49'39
	3746 Aug 29 16:10	0° \mathbb{M}			3751 Jul 25 01:36	0° \mathcal{O}	
desc. node	3746 Sep 05 03:22	3° \mathbb{M} 57'49		max. Earth dist.	3751 Aug 09 15:31	10° \mathcal{O} 28'28	2.57763 AU
	3746 Oct 15 17:25	0° \mathfrak{A}		morning rise	3751 Sep 02 08:01	26° \mathcal{O} 06'03	
	3746 Nov 28 04:48	0° \mathfrak{Z}			3751 Sep 08 07:44	0° \mathfrak{M}	
evening set	3746 Dec 30 17:38	23° \mathfrak{Z} 46'26			3751 Oct 25 09:36	0° \mathfrak{L}	
	3747 Jan 08 00:48	0° \approx			3751 Dec 13 08:34	0° \mathbb{M}	
max. Earth dist.	3747 Jan 25 07:59	13° \approx 09'50	2.38796 AU		3752 Feb 03 14:05	0° \mathfrak{A}	
	3747 Feb 16 01:41	0° \mathfrak{H}			3752 Apr 09 06:17	0° \mathfrak{Z}	
				desc. node	3752 Apr 26 23:08	4° \mathfrak{Z} 31'53	
conjunction	3747 Mar 01 09:43	10° \mathfrak{H} 27'03	-1°-4'-12	retrograde	3752 May 13 18:16	6° \mathfrak{Z} 07'24	
minimum elong	3747 Mar 01 10:36	10° \mathfrak{H} 28'47	1°04'12		3752 Jun 14 17:23	30° \mathfrak{R} \mathfrak{A}	
	3747 Mar 26 04:28	0° \mathcal{Y}		opposition	3752 Jun 18 02:24	28° \mathfrak{A} 49'13	-2°-20'-50
	3747 May 03 06:58	0° \mathfrak{B}		greatest brilliancy	3752 Jun 19 03:00	28° \mathfrak{A} 27'21	-2.0m
morning rise	3747 May 10 21:50	5° \mathfrak{B} 56'17		min. Earth dist.	3752 Jun 26 07:42	25° \mathfrak{A} 54'07	0.51691 AU
	3747 Jun 11 06:18	0° \mathbb{I}		direct	3752 Jul 27 00:07	19° \mathfrak{A} 51'53	

	3752 Sep 06 18:51	0°☾		conjunction	3757 Nov 04 21:03	13°☾16'37	0°23'21
	3752 Oct 29 14:08	0°≈		minimum elong	3757 Nov 04 21:46	13°☾17'48	0°23'20
	3752 Dec 11 00:04	0°☿			3757 Nov 30 04:23	0°☿	
	3753 Jan 19 20:40	0°♊		desc. node	3757 Dec 17 20:23	11°☿53'21	
	3753 Feb 28 10:40	0°♋		morning rise	3757 Dec 20 04:01	13°☿27'49	
asc. node	3753 Mar 02 12:18	1°♌33'12			3758 Jan 13 05:33	0°☾	
	3753 Apr 09 23:29	0°♍			3758 Feb 24 14:23	0°≈	
	3753 May 22 03:18	0°☿			3758 Apr 06 13:20	0°☿	
evening set	3753 Jul 05 08:24	0°♊07'34			3758 May 16 13:59	0°♊	
	3753 Jul 05 03:52	0°♋			3758 Jun 25 12:44	0°♋	
	3753 Aug 19 20:14	0°♌			3758 Aug 05 22:03	0°♍	
					3758 Sep 21 10:02	0°☿	
conjunction	3753 Aug 24 05:08	2°♎49'29	1°08'15	asc. node	3758 Oct 23 09:15	15°☿45'16	
minimum elong	3753 Aug 24 05:03	2°♎49'21	1°08'16	retrograde	3758 Nov 27 08:26	23°☿18'57	
max. Earth dist.	3753 Sep 04 05:18	9°♎54'38	2.65475 AU	min. Earth dist.	3758 Dec 28 05:55	16°☿45'32	0.53290 AU
	3753 Oct 05 16:32	0°♏		greatest brilliancy	3759 Jan 03 08:41	14°☿26'07	-1.9m
morning rise	3753 Oct 09 09:44	2°♏21'37		opposition	3759 Jan 04 16:44	13°☿55'29	3°24'33
	3753 Nov 22 03:48	0°♐		direct	3759 Feb 08 23:37	6°☿06'44	
	3754 Jan 09 00:48	0°♑			3759 Apr 25 13:49	0°♊	
	3754 Feb 26 17:37	0°☾			3759 Jun 20 03:08	0°♋	
desc. node	3754 Mar 14 22:13	9°☾43'54			3759 Aug 09 21:02	0°♌	
	3754 Apr 19 00:56	0°≈			3759 Sep 27 00:31	0°♍	
	3754 Jun 24 09:48	0°☿		evening set	3759 Oct 28 05:51	20°♍17'40	
retrograde	3754 Jul 20 13:11	3°☿53'18		desc. node	3759 Nov 04 19:03	25°♍18'39	
	3754 Aug 15 08:12	30°♌≈			3759 Nov 11 19:00	0°☿	
opposition	3754 Aug 20 03:05	28°≈41'08	-6°-34'-49	max. Earth dist.	3759 Nov 15 13:55	2°☿33'13	2.56203 AU
greatest brilliancy	3754 Aug 21 18:01	28°≈13'47	-2.7m				
min. Earth dist.	3754 Aug 25 11:53	27°≈10'56	0.39167 AU	conjunction	3759 Dec 15 00:27	22°☿47'49	0°-22'-41
direct	3754 Sep 21 05:54	22°≈50'37		minimum elong	3759 Dec 14 23:33	22°☿46'16	0°22'42
	3754 Oct 24 22:47	0°☿			3759 Dec 25 06:04	0°☾	
	3754 Dec 19 01:34	0°♊		morning rise	3760 Feb 04 01:50	29°☾34'52	
asc. node	3755 Jan 18 11:32	20°♊08'48			3760 Feb 04 15:24	0°≈	
	3755 Feb 01 22:16	0°♋			3760 Mar 15 10:16	0°☿	
	3755 Mar 17 15:14	0°♌			3760 Apr 23 05:50	0°♊	
	3755 May 01 00:28	0°☿			3760 May 31 21:21	0°♋	
	3755 Jun 15 14:51	0°♋			3760 Jul 10 08:27	0°♌	
	3755 Aug 01 07:09	0°♍			3760 Aug 20 21:32	0°☿	
evening set	3755 Aug 15 15:02	9°♍07'06		asc. node	3760 Sep 09 08:38	13°☿12'49	
	3755 Sep 17 12:18	0°♏			3760 Oct 05 19:45	0°♊	
max. Earth dist.	3755 Sep 27 05:02	6°♏09'44	2.67753 AU		3760 Dec 06 15:04	0°♋	
				retrograde	3761 Jan 04 10:47	4°♌52'53	
conjunction	3755 Sep 30 14:31	8°♏19'15	0°56'19		3761 Jan 31 05:18	30°♌☾	
minimum elong	3755 Sep 30 15:32	8°♏20'52	0°56'19	min. Earth dist.	3761 Feb 09 15:01	26°♊27'44	0.63664 AU
	3755 Nov 03 13:26	0°♍		opposition	3761 Feb 13 11:58	24°♊54'51	4°38'16
morning rise	3755 Nov 13 18:18	6°♍33'28		greatest brilliancy	3761 Feb 12 15:06	25°♊15'44	-1.4m
	3755 Dec 19 21:29	0°☿		direct	3761 Mar 24 05:25	15°♊48'08	
desc. node	3756 Jan 30 21:33	27°☿44'15			3761 May 19 07:44	0°♋	
	3756 Feb 03 06:54	0°☾			3761 Jul 17 21:48	0°♌	
	3756 Mar 18 18:15	0°≈			3761 Sep 06 12:53	0°♍	
	3756 May 01 14:09	0°☿		desc. node	3761 Sep 21 17:45	9°♍34'05	
	3756 Jun 14 14:06	0°♊			3761 Oct 23 00:20	0°☿	
	3756 Jul 31 20:52	0°♋			3761 Dec 05 09:25	0°☾	
retrograde	3756 Oct 05 14:32	23°♌16'31		evening set	3761 Dec 10 03:46	3°☾24'42	
min. Earth dist.	3756 Nov 01 02:42	18°♌42'13	0.40270 AU	max. Earth dist.	3761 Dec 25 09:26	14°☾28'05	2.43720 AU
opposition	3756 Nov 07 23:45	16°♌35'08	-1°-48'-58		3762 Jan 15 07:37	0°≈	
greatest brilliancy	3756 Nov 07 09:01	16°♌46'32	-2.7m				
asc. node	3756 Dec 05 11:22	11°♌02'26		conjunction	3762 Feb 03 17:25	14°≈43'38	-1°-2'-7
direct	3756 Dec 08 12:35	10°♌58'38		minimum elong	3762 Feb 03 16:08	14°≈41'11	1°02'08
	3757 Feb 09 02:37	0°♍			3762 Feb 23 12:11	0°☿	
	3757 Apr 04 06:57	0°☿			3762 Apr 02 18:22	0°♊	
	3757 May 24 01:55	0°♋		morning rise	3762 Apr 09 20:49	5°♊35'49	
	3757 Jul 11 22:20	0°♌			3762 May 10 22:54	0°♋	
	3757 Aug 29 04:22	0°♏			3762 Jun 18 23:07	0°♌	
evening set	3757 Sep 20 14:36	14°♏08'28		asc. node	3762 Jul 28 08:37	29°♌03'38	
	3757 Oct 15 10:09	0°♐			3762 Jul 29 16:02	0°☿	
max. Earth dist.	3757 Oct 19 18:00	2°♐47'31	2.64579 AU		3762 Sep 11 00:42	0°♊	
					3762 Oct 28 16:59	0°♋	

	3762 Dec 27 06:22	0°♄			3768 Mar 08 23:01	0°♄	
retrograde	3763 Feb 08 00:08	9°♄20'03		asc. node	3768 Mar 19 05:24	7°♄47'55	
	3763 Mar 19 06:41	30°♄			3768 Apr 17 22:58	0°♄	
opposition	3763 Mar 20 05:37	29°♄37'09	4°03'25		3768 May 29 15:23	0°♄	
greatest brilliancy	3763 Mar 20 05:02	29°♄37'44	-1.2m	evening set	3768 Jun 16 17:17	12°♄35'41	
min. Earth dist.	3763 Mar 20 05:48	29°♄36'57	0.67837 AU		3768 Jul 12 06:32	0°♄	
direct	3763 Apr 30 01:21	19°♄48'48					
	3763 Jun 15 04:27	0°♄		conjunction	3768 Aug 08 06:21	17°♄56'50	1°05'21
desc. node	3763 Aug 09 16:39	26°♄57'33		minimum elong	3768 Aug 08 05:32	17°♄55'30	1°05'21
	3763 Aug 15 01:32	0°♄		max. Earth dist.	3768 Aug 25 13:19	29°♄14'42	2.63105 AU
	3763 Oct 02 22:05	0°♄			3768 Aug 26 17:14	0°♄	
	3763 Nov 15 22:00	0°♄		morning rise	3768 Sep 25 05:04	18°♄58'20	
	3763 Dec 26 19:44	0°♄			3768 Oct 12 13:37	0°♄	
	3764 Feb 03 18:45	0°♄			3768 Nov 29 10:28	0°♄	
evening set	3764 Feb 07 00:18	2°♄31'52			3769 Jan 17 10:39	0°♄	
	3764 Mar 12 19:28	0°♄			3769 Mar 09 23:49	0°♄	
				desc. node	3769 Mar 31 13:46	11°♄35'05	
conjunction	3764 Apr 14 22:45	26°♄08'28	0°-38'-46		3769 May 11 06:49	0°♄	
minimum elong	3764 Apr 15 02:01	26°♄14'51	0°38'45	retrograde	3769 Jun 20 14:01	8°♄20'13	
	3764 Apr 19 21:05	0°♄		opposition	3769 Jul 23 03:19	2°♄18'43	-5°-13'-56
	3764 May 28 20:51	0°♄		greatest brilliancy	3769 Jul 25 02:13	1°♄41'44	-2.4m
max. Earth dist.	3764 Jun 04 19:58	5°♄14'23	2.39904 AU		3769 Jul 30 12:20	30°♄	
asc. node	3764 Jun 14 07:07	12°♄17'55		min. Earth dist.	3769 Jul 31 02:41	29°♄49'05	0.43509 AU
morning rise	3764 Jun 23 07:49	18°♄57'30		direct	3769 Aug 27 08:32	25°♄03'24	
	3764 Jul 08 12:32	0°♄			3769 Sep 23 23:25	0°♄	
	3764 Aug 20 09:45	0°♄			3769 Nov 20 00:09	0°♄	
	3764 Oct 05 00:48	0°♄			3770 Jan 02 12:49	0°♄	
	3764 Nov 23 12:10	0°♄		asc. node	3770 Feb 04 03:23	23°♄31'06	
	3765 Jan 21 14:41	0°♄			3770 Feb 13 02:29	0°♄	
retrograde	3765 Mar 14 08:19	12°♄32'21			3770 Mar 27 00:48	0°♄	
opposition	3765 Apr 22 13:49	3°♄28'32	2°18'15		3770 May 09 06:26	0°♄	
greatest brilliancy	3765 Apr 23 00:31	3°♄18'05	-1.3m		3770 Jun 23 02:05	0°♄	
min. Earth dist.	3765 Apr 26 10:09	1°♄58'27	0.65402 AU	evening set	3770 Jul 31 10:04	24°♄56'34	
	3765 May 01 14:34	30°♄			3770 Aug 08 06:42	0°♄	
direct	3765 Jun 03 02:17	23°♄25'52					
desc. node	3765 Jun 26 15:03	26°♄33'25		conjunction	3770 Sep 16 11:16	25°♄01'57	1°03'51
	3765 Jul 08 06:52	0°♄		minimum elong	3770 Sep 16 12:00	25°♄03'08	1°03'51
	3765 Sep 07 23:27	0°♄		max. Earth dist.	3770 Sep 18 12:13	26°♄19'48	2.67520 AU
	3765 Oct 24 13:25	0°♄			3770 Sep 24 06:42	0°♄	
	3765 Dec 05 05:47	0°♄		morning rise	3770 Oct 31 00:40	23°♄22'43	
	3766 Jan 13 10:39	0°♄			3770 Nov 10 09:53	0°♄	
	3766 Feb 20 14:27	0°♄			3770 Dec 27 04:56	0°♄	
	3766 Mar 30 20:26	0°♄			3771 Feb 11 12:42	0°♄	
evening set	3766 Apr 19 08:40	15°♄02'18		desc. node	3771 Feb 16 12:49	3°♄15'19	
asc. node	3766 May 02 06:04	24°♄50'02			3771 Mar 29 14:25	0°♄	
	3766 May 09 02:55	0°♄			3771 May 15 03:56	0°♄	
	3766 Jun 19 02:11	0°♄			3771 Jul 04 02:48	0°♄	
				retrograde	3771 Sep 08 22:33	22°♄34'26	
conjunction	3766 Jun 21 10:57	1°♄41'20	0°31'27	min. Earth dist.	3771 Oct 06 17:39	18°♄01'40	0.37363 AU
minimum elong	3766 Jun 21 09:05	1°♄38'01	0°31'26	opposition	3771 Oct 09 15:58	17°♄14'04	-4°-53'-44
max. Earth dist.	3766 Jul 28 04:27	27°♄18'27	2.53368 AU	greatest brilliancy	3771 Oct 09 04:55	17°♄21'33	-2.9m
	3766 Aug 01 03:19	0°♄		direct	3771 Nov 08 00:54	12°♄18'31	
morning rise	3766 Aug 16 12:08	10°♄21'26		asc. node	3771 Dec 23 02:45	23°♄38'08	
	3766 Sep 15 08:27	0°♄			3772 Jan 05 12:53	0°♄	
	3766 Nov 01 17:38	0°♄			3772 Feb 27 00:34	0°♄	
	3766 Dec 21 20:27	0°♄			3772 Apr 15 00:23	0°♄	
	3767 Feb 16 08:31	0°♄			3772 Jun 01 13:16	0°♄	
retrograde	3767 Apr 25 00:04	19°♄26'02			3772 Jul 19 07:55	0°♄	
desc. node	3767 May 14 13:44	17°♄01'22			3772 Sep 05 01:50	0°♄	
opposition	3767 May 31 19:30	11°♄29'23	0°-43'-58	evening set	3772 Sep 06 10:35	0°♄51'41	
greatest brilliancy	3767 Jun 01 02:36	11°♄22'49	-1.7m	max. Earth dist.	3772 Oct 10 10:33	22°♄27'45	2.66471 AU
min. Earth dist.	3767 Jun 08 02:41	8°♄47'08	0.56587 AU				
direct	3767 Jul 11 01:34	1°♄56'22		conjunction	3772 Oct 21 15:17	29°♄39'01	0°38'08
	3767 Sep 26 13:59	0°♄		minimum elong	3772 Oct 21 16:17	29°♄40'38	0°38'07
	3767 Nov 11 06:46	0°♄			3772 Oct 22 04:19	0°♄	
	3767 Dec 21 23:15	0°♄		morning rise	3772 Dec 05 01:21	28°♄38'30	
	3768 Jan 29 23:39	0°♄			3772 Dec 07 02:31	0°♄	

desc. node	3773 Jan 03 11:07	18°♂20'09		opposition	3778 Mar 07 01:02	16°♂39'23	4°26'03
	3773 Jan 20 13:49	0°♂		greatest brilliancy	3778 Mar 06 16:53	16°♂47'32	-1.3m
	3773 Mar 04 14:09	0°≈		direct	3778 Apr 16 04:28	7°♂04'11	
	3773 Apr 15 08:20	0°♂			3778 Jun 30 10:10	0°♂	
	3773 May 26 07:29	0°♀			3778 Aug 24 02:14	0°♂	
	3773 Jul 06 11:49	0°♂		desc. node	3778 Aug 26 07:30	1°♂19'43	
	3773 Aug 19 08:25	0°♂			3778 Oct 10 17:10	0°♂	
	3773 Oct 18 16:41	0°♂			3778 Nov 23 09:11	0°♂	
retrograde	3773 Nov 09 04:22	3°♂09'04			3779 Jan 03 06:15	0°≈	
asc. node	3773 Nov 09 02:58	3°♂09'04		evening set	3779 Jan 12 15:59	7°≈07'42	
	3773 Nov 30 00:09	30°♂♂			3779 Feb 11 06:46	0°♂	
min. Earth dist.	3773 Dec 07 19:35	27°♂28'32	0.47992 AU	max. Earth dist.	3779 Mar 04 14:48	16°♂45'38	2.37032 AU
greatest brilliancy	3773 Dec 15 03:05	24°♂50'49	-2.2m				
opposition	3773 Dec 16 02:32	24°♂29'37	2°01'35	conjunction	3779 Mar 17 07:21	26°♂47'08	0°-59'-8
direct	3774 Jan 18 14:23	17°♂27'07		minimum elong	3779 Mar 17 09:47	26°♂51'58	0°59'08
	3774 Mar 09 17:06	0°♂			3779 Mar 21 08:54	0°♀	
	3774 May 07 23:13	0°♂			3779 Apr 28 10:43	0°♂	
	3774 Jun 28 18:24	0°♂		morning rise	3779 May 27 20:05	22°♂44'12	
	3774 Aug 17 06:22	0°♂			3779 Jun 06 09:18	0°♂	
	3774 Oct 03 23:03	0°♂		asc. node	3779 Jul 02 00:12	19°♂06'30	
evening set	3774 Oct 13 05:48	5°♂58'54			3779 Jul 16 23:38	0°♂	
max. Earth dist.	3774 Nov 04 11:14	20°♂31'37	2.60060 AU		3779 Aug 28 22:00	0°♂	
	3774 Nov 18 16:19	0°♂			3779 Oct 13 23:57	0°♂	
desc. node	3774 Nov 21 09:54	1°♂50'16			3779 Dec 04 08:38	0°♂	
				retrograde	3780 Feb 29 05:04	29°♂39'59	
conjunction	3774 Nov 28 13:54	6°♂40'56	0°-4'-5	opposition	3780 Apr 08 23:20	20°♂18'09	3°07'01
minimum elong	3774 Nov 28 13:45	6°♂40'41	0°04'06	greatest brilliancy	3780 Apr 09 07:35	20°♂10'02	-1.2m
behind sun begin	3774 Nov 27 18:27	6°♂07'59		min. Earth dist.	3780 Apr 11 07:53	19°♂22'23	0.67144 AU
behind sun end	3774 Nov 29 09:03	7°♂13'24		direct	3780 May 20 09:28	10°♂17'28	
	3775 Jan 01 07:44	0°♂		desc. node	3780 Jul 13 06:43	23°♂54'21	
morning rise	3775 Jan 15 14:38	10°♂07'52			3780 Jul 26 12:16	0°♂	
	3775 Feb 12 00:51	0°≈			3780 Sep 17 19:42	0°♂	
	3775 Mar 24 04:43	0°♂			3780 Nov 01 23:33	0°♂	
	3775 May 02 09:13	0°♀			3780 Dec 13 05:37	0°≈	
	3775 Jun 10 09:10	0°♂			3781 Jan 21 06:37	0°♂	
	3775 Jul 20 06:35	0°♂		greatest brilliancy	3781 Feb 23 14:52	26°♂16'03	1.2m
	3775 Aug 31 17:12	0°♂			3781 Feb 28 08:09	0°♀	
asc. node	3775 Sep 27 01:42	16°♂56'50		evening set	3781 Mar 22 07:32	17°♀20'36	
	3775 Oct 19 20:36	0°♂			3781 Apr 07 11:23	0°♂	
retrograde	3775 Dec 22 03:11	20°♂09'10			3781 May 16 14:04	0°♂	
min. Earth dist.	3776 Jan 25 09:09	12°♂23'10	0.60261 AU	asc. node	3781 May 18 22:40	1°♂46'22	
opposition	3776 Jan 30 17:46	10°♂15'48	4°27'09				
greatest brilliancy	3776 Jan 29 13:44	10°♂43'37	-1.6m	conjunction	3781 May 28 15:43	9°♂01'23	0°06'31
direct	3776 Mar 08 06:23	1°♂34'14		minimum elong	3781 May 28 15:10	9°♂00'23	0°06'29
	3776 Jun 02 05:22	0°♂		behind sun begin	3781 May 27 14:03	8°♂13'43	
	3776 Jul 26 15:54	0°♂		behind sun end	3781 May 29 16:18	9°♂47'00	
	3776 Sep 14 00:46	0°♂			3781 Jun 26 09:04	0°♂	
desc. node	3776 Oct 08 08:47	15°♂35'25		max. Earth dist.	3781 Jul 12 23:08	11°♂47'05	2.48306 AU
	3776 Oct 30 03:38	0°♂		morning rise	3781 Jul 28 16:46	22°♂44'32	
evening set	3776 Nov 21 20:29	15°♂28'58			3781 Aug 08 06:52	0°♂	
max. Earth dist.	3776 Dec 06 04:27	25°♂30'26	2.48911 AU		3781 Sep 22 12:55	0°♂	
	3776 Dec 12 12:32	0°♂			3781 Nov 09 10:05	0°♂	
					3781 Dec 31 09:54	0°♂	
conjunction	3777 Jan 12 12:36	22°♂30'29	0°-50'-14		3782 Mar 09 15:10	0°♂	
minimum elong	3777 Jan 12 10:49	22°♂27'12	0°50'13	retrograde	3782 Apr 07 12:59	4°♂24'53	
	3777 Jan 22 14:19	0°≈			3782 May 04 03:37	30°♂♂	
	3777 Mar 02 23:28	0°♂		opposition	3782 May 15 12:12	25°♂57'19	0°37'30
morning rise	3777 Mar 12 04:14	7°♂08'09		greatest brilliancy	3782 May 15 17:30	25°♂52'16	-1.5m
	3777 Apr 10 09:46	0°♀		min. Earth dist.	3782 May 21 13:22	23°♂39'08	0.60762 AU
	3777 May 18 17:13	0°♂		desc. node	3782 May 31 05:22	20°♂15'24	
	3777 Jun 26 19:37	0°♂		direct	3782 Jun 25 13:34	16°♂04'30	
	3777 Aug 06 16:34	0°♂			3782 Aug 16 21:44	0°♂	
asc. node	3777 Aug 14 00:10	5°♂10'49			3782 Oct 08 19:43	0°♂	
	3777 Sep 19 14:02	0°♂			3782 Nov 21 02:31	0°≈	
	3777 Nov 08 08:36	0°♂			3782 Dec 30 22:30	0°♂	
retrograde	3778 Jan 25 18:07	26°♂31'29			3783 Feb 07 11:18	0°♀	
min. Earth dist.	3778 Mar 05 12:48	17°♂15'39	0.66984 AU		3783 Mar 18 01:16	0°♂	

asc. node	3783 Apr 05 20:53	14°♄23'00		3788 Apr 24 22:41	0°♄	
	3783 Apr 26 16:07	0°♄		3788 Jun 06 11:17	0°♄	
evening set	3783 May 27 20:43	22°♄46'23		3788 Jul 20 06:42	0°♄	
	3783 Jun 06 23:58	0°♄		3788 Sep 11 00:34	0°♄	
	3783 Jul 20 07:55	0°♄		3788 Oct 19 03:45	9°♄13'40	
			retrograde	3788 Nov 15 00:46	4°♄21'31	0.42771 AU
conjunction	3783 Jul 22 22:20	1°♄45'25	0°57'11	opposition	3788 Nov 23 00:20	1°♄44'04 0°-10'-26
minimum elong	3783 Jul 22 20:47	1°♄42'49	0°57'10	greatest brilliancy	3788 Dec 24 11:22	25°♄36'27 -2.8m
max. Earth dist.	3783 Aug 16 03:07	17°♄54'02	2.59906 AU	asc. node	3788 Nov 25 18:46	0°♄50'06
	3783 Sep 03 14:40	0°♄		3788 Nov 28 10:42	30°♄	
morning rise	3783 Sep 11 07:45	4°♄59'53		direct	3788 Dec 24 12:03	25°♄36'27
	3783 Oct 20 13:11	0°♄		3789 Jan 20 20:52	0°♄	
	3783 Dec 08 00:15	0°♄		3789 Mar 27 05:47	0°♄	
	3784 Jan 27 17:44	0°♄		3789 May 18 02:28	0°♄	
	3784 Mar 25 02:13	0°♄		3789 Jul 06 18:56	0°♄	
desc. node	3784 Apr 17 04:09	9°♄23'56		3789 Aug 24 10:06	0°♄	
retrograde	3784 May 26 06:26	17°♄07'15		evening set	3789 Sep 28 18:48	22°♄17'50
opposition	3784 Jun 29 16:33	10°♄13'45	-3°-22'-33		3789 Oct 10 19:21	0°♄
greatest brilliancy	3784 Jul 01 03:22	9°♄43'43	-2.1m	max. Earth dist.	3789 Oct 25 09:40	9°♄26'40 2.63183 AU
min. Earth dist.	3784 Jul 08 03:14	7°♄19'56	0.48801 AU			
direct	3784 Aug 06 12:18	1°♄45'28		conjunction	3789 Nov 13 07:02	21°♄50'28 0°13'43
	3784 Oct 20 14:00	0°♄		minimum elong	3789 Nov 13 07:29	21°♄51'13 0°13'43
	3784 Dec 04 01:22	0°♄		behind sun begin	3789 Nov 12 21:21	21°♄34'27
	3785 Jan 13 17:29	0°♄		behind sun end	3789 Nov 13 17:38	22°♄08'00
asc. node	3785 Feb 20 20:42	28°♄33'27			3789 Nov 25 13:23	0°♄
	3785 Feb 22 19:12	0°♄		desc. node	3789 Dec 08 00:23	8°♄23'08
	3785 Apr 04 16:24	0°♄		morning rise	3789 Dec 29 07:59	22°♄57'50
	3785 May 17 03:00	0°♄			3790 Jan 08 11:09	0°♄
	3785 Jun 30 08:31	0°♄			3790 Feb 19 14:26	0°♄
evening set	3785 Jul 15 05:16	9°♄49'55			3790 Apr 01 06:08	0°♄
	3785 Aug 15 04:09	0°♄			3790 May 10 22:41	0°♄
					3790 Jun 19 11:12	0°♄
conjunction	3785 Sep 01 21:45	11°♄24'32	1°07'48		3790 Jul 30 02:28	0°♄
minimum elong	3785 Sep 01 22:01	11°♄24'58	1°07'48		3790 Sep 12 08:59	0°♄
max. Earth dist.	3785 Sep 09 15:28	16°♄21'42	2.66442 AU	asc. node	3790 Oct 13 17:58	17°♄56'53
	3785 Oct 01 00:55	0°♄			3790 Nov 12 00:27	0°♄
morning rise	3785 Oct 17 08:39	10°♄21'55		retrograde	3790 Dec 06 18:50	3°♄55'29
	3785 Nov 17 08:28	0°♄			3790 Dec 30 04:34	30°♄
	3786 Jan 03 18:30	0°♄		min. Earth dist.	3791 Jan 07 22:00	26°♄54'27 0.55973 AU
	3786 Feb 20 10:02	0°♄		greatest brilliancy	3791 Jan 13 07:48	24°♄48'38 -1.8m
desc. node	3786 Mar 05 03:31	7°♄56'15		opposition	3791 Jan 14 16:09	24°♄17'07 3°55'37
	3786 Apr 10 03:34	0°♄		direct	3791 Feb 19 19:20	16°♄07'17
	3786 Jun 02 06:19	0°♄			3791 Apr 15 05:49	0°♄
retrograde	3786 Aug 07 17:22	20°♄52'04			3791 Jun 13 22:08	0°♄
opposition	3786 Sep 06 20:04	15°♄54'18	-6°-38'-15		3791 Aug 04 17:14	0°♄
greatest brilliancy	3786 Sep 07 18:06	15°♄39'29	-2.8m		3791 Sep 22 06:05	0°♄
min. Earth dist.	3786 Sep 09 12:14	15°♄11'13	0.37661 AU	desc. node	3791 Oct 25 23:53	21°♄53'26
direct	3786 Oct 07 09:53	10°♄40'47		evening set	3791 Nov 06 05:15	29°♄22'22
	3786 Dec 06 06:25	0°♄			3791 Nov 07 03:39	0°♄
asc. node	3787 Jan 08 20:14	19°♄50'59		max. Earth dist.	3791 Nov 22 19:23	10°♄37'39 2.53741 AU
	3787 Jan 24 16:56	0°♄			3791 Dec 20 14:04	0°♄
	3787 Mar 11 02:39	0°♄				
	3787 Apr 25 09:35	0°♄		conjunction	3791 Dec 25 03:21	3°♄14'19 0°-33'-23
	3787 Jun 10 12:38	0°♄		minimum elong	3791 Dec 25 02:02	3°♄11'58 0°33'24
	3787 Jul 27 12:32	0°♄			3792 Jan 30 20:56	0°♄
evening set	3787 Aug 24 01:20	17°♄26'22		morning rise	3792 Feb 16 11:33	12°♄26'45
	3787 Sep 12 21:21	0°♄			3792 Mar 10 12:19	0°♄
max. Earth dist.	3787 Oct 02 10:20	12°♄24'41	2.67528 AU		3792 Apr 18 04:27	0°♄
					3792 May 26 16:41	0°♄
conjunction	3787 Oct 08 15:18	16°♄21'54	0°50'25		3792 Jul 04 23:30	0°♄
minimum elong	3787 Oct 08 16:22	16°♄23'36	0°50'25		3792 Aug 15 04:17	0°♄
	3787 Oct 29 22:38	0°♄		asc. node	3792 Aug 30 17:17	10°♄45'58
morning rise	3787 Nov 21 18:02	14°♄43'47			3792 Sep 29 01:18	0°♄
	3787 Dec 15 02:59	0°♄			3792 Nov 22 11:31	0°♄
desc. node	3788 Jan 21 02:01	24°♄33'53		retrograde	3793 Jan 12 07:51	13°♄15'00
	3788 Jan 29 03:42	0°♄		min. Earth dist.	3793 Feb 18 11:26	4°♄30'32 0.65122 AU
	3788 Mar 13 00:45	0°♄		opposition	3793 Feb 21 12:13	3°♄17'38 4°37'34

greatest brilliancy	3793 Feb 20 19:50	3° $\mathring{\text{M}}$ 34'03	-1.3m		3798 May 04 06:32	0° Π	
	3793 Mar 02 00:04	30° $\text{R}\Omega$			3798 Jun 14 07:35	0° \mathfrak{S}	
direct	3793 Apr 01 18:50	23° Ω 59'37					
	3793 May 06 01:29	0° $\mathring{\text{M}}$		conjunction	3798 Jul 03 13:02	13° \mathfrak{S} 34'10	0°42'45
	3793 Jul 11 13:29	0° $\underline{\text{A}}$		minimum elong	3798 Jul 03 11:03	13° \mathfrak{S} 30'42	0°42'45
	3793 Sep 01 08:07	0° $\mathring{\text{M}}$			3798 Jul 27 09:45	0° Ω	
desc. node	3793 Sep 11 23:05	6° $\mathring{\text{M}}$ 34'53		max. Earth dist.	3798 Aug 04 15:14	5° Ω 34'02	2.55876 AU
	3793 Oct 18 04:47	0° \mathfrak{X}		morning rise	3798 Aug 26 07:24	20° Ω 00'24	
	3793 Nov 30 16:26	0° \mathfrak{Z}			3798 Sep 10 13:57	0° $\mathring{\text{M}}$	
evening set	3793 Dec 21 11:27	15° \mathfrak{Z} 02'39			3798 Oct 27 17:18	0° $\underline{\text{A}}$	
max. Earth dist.	3794 Jan 09 09:21	29° \mathfrak{Z} 05'15	2.40873 AU		3798 Dec 16 01:42	0° $\mathring{\text{M}}$	
	3794 Jan 10 14:29	0° \approx			3799 Feb 07 16:14	0° \mathfrak{X}	
				desc. node	3799 May 04 18:57	29° \mathfrak{X} 08'22	
conjunction	3794 Feb 17 18:37	29° \approx 15'30	-1°-4'-52	retrograde	3799 May 05 21:15	29° \mathfrak{X} 08'48	
minimum elong	3794 Feb 17 18:22	29° \approx 15'01	1°04'53	opposition	3799 Jun 10 21:41	21° \mathfrak{X} 32'12	-1°-37'-45
	3794 Feb 18 17:28	0° \mathfrak{X}		greatest brilliancy	3799 Jun 11 14:19	21° \mathfrak{X} 17'05	-1.9m
	3794 Mar 28 21:52	0° \mathfrak{Y}		min. Earth dist.	3799 Jun 18 18:07	18° \mathfrak{X} 41'12	0.53961 AU
morning rise	3794 Apr 27 07:47	23° \mathfrak{Y} 10'37		direct	3799 Jul 20 11:16	12° \mathfrak{X} 16'24	
	3794 May 06 00:53	0° \mathfrak{X}			3799 Sep 16 14:14	0° \mathfrak{Z}	
	3794 Jun 13 23:36	0° Π			3799 Nov 04 08:29	0° \approx	
asc. node	3794 Jul 18 15:20	25° Π 41'54			3799 Dec 15 21:47	0° \mathfrak{X}	
	3794 Jul 24 14:19	0° \mathfrak{S}			3800 Jan 24 08:14	0° \mathfrak{Y}	
	3794 Sep 05 17:04	0° Ω			3800 Mar 04 14:37	0° \mathfrak{X}	
	3794 Oct 22 14:00	0° $\mathring{\text{M}}$		asc. node	3800 Mar 10 12:55	4° \mathfrak{X} 29'01	
	3794 Dec 16 14:06	0° $\underline{\text{A}}$			3800 Apr 13 20:11	0° Π	
retrograde	3795 Feb 15 16:07	17° $\underline{\text{A}}$ 02'48			3800 May 25 17:28	0° \mathfrak{S}	
opposition	3795 Mar 27 18:25	7° $\underline{\text{A}}$ 26'32	3°45'24	evening set	3800 Jun 28 13:25	23° \mathfrak{S} 17'19	
greatest brilliancy	3795 Mar 27 21:29	7° $\underline{\text{A}}$ 23'29	-1.2m		3800 Jul 08 12:25	0° Ω	
min. Earth dist.	3795 Mar 28 14:41	7° $\underline{\text{A}}$ 06'24	0.67883 AU				
	3795 Apr 18 06:44	30° $\text{R}\mathring{\text{M}}$		conjunction	3800 Aug 18 12:38	27° Ω 03'50	1°07'37
direct	3795 May 07 20:18	27° $\mathring{\text{M}}$ 32'47		minimum elong	3800 Aug 18 12:16	27° Ω 03'14	1°07'37
	3795 May 28 22:04	0° $\underline{\text{A}}$			3800 Aug 23 01:10	0° $\mathring{\text{M}}$	
desc. node	3795 Jul 30 21:27	25° $\underline{\text{A}}$ 23'07		max. Earth dist.	3800 Sep 01 05:17	5° $\mathring{\text{M}}$ 55'57	2.64521 AU
	3795 Aug 08 11:25	0° $\mathring{\text{M}}$		morning rise	3800 Oct 04 10:06	27° $\mathring{\text{M}}$ 10'59	
	3795 Sep 27 13:29	0° \mathfrak{X}			3800 Oct 08 20:32	0° $\underline{\text{A}}$	
	3795 Nov 10 22:28	0° \mathfrak{Z}			3800 Nov 25 11:18	0° $\mathring{\text{M}}$	
	3795 Dec 21 23:23	0° \approx			3801 Jan 12 18:43	0° \mathfrak{X}	
	3796 Jan 29 23:06	0° \mathfrak{X}			3801 Mar 03 11:58	0° \mathfrak{Z}	
evening set	3796 Feb 22 11:30	18° \mathfrak{X} 30'49		desc. node	3801 Mar 22 17:56	11° \mathfrak{Z} 07'41	
	3796 Mar 07 23:47	0° \mathfrak{Y}			3801 Apr 26 18:57	0° \approx	
	3796 Apr 15 01:18	0° \mathfrak{X}		retrograde	3801 Jul 07 21:44	22° \approx 34'53	
				opposition	3801 Aug 08 06:41	17° \approx 02'33	-6°-7'-19
conjunction	3796 May 01 10:04	12° \mathfrak{X} 42'58	0°-22'-50	greatest brilliancy	3801 Aug 10 04:58	16° \approx 28'21	-2.6m
minimum elong	3796 May 01 12:13	12° \mathfrak{X} 47'06	0°22'49	min. Earth dist.	3801 Aug 15 04:04	15° \approx 00'56	0.40917 AU
	3796 May 24 01:00	0° Π		direct	3801 Sep 10 20:00	10° \approx 34'28	
asc. node	3796 Jun 04 15:00	8° Π 41'40			3801 Nov 08 20:47	0° \mathfrak{X}	
max. Earth dist.	3796 Jun 22 04:53	21° Π 40'17	2.42823 AU		3801 Dec 26 09:04	0° \mathfrak{Y}	
	3796 Jul 03 16:32	0° \mathfrak{S}		asc. node	3802 Jan 26 11:46	21° \mathfrak{Y} 36'24	
morning rise	3796 Jul 07 03:10	2° \mathfrak{S} 28'22			3802 Feb 07 09:56	0° \mathfrak{X}	
	3796 Aug 15 12:24	0° Ω			3802 Mar 22 04:08	0° Π	
	3796 Sep 29 22:00	0° $\mathring{\text{M}}$			3802 May 04 22:43	0° \mathfrak{S}	
	3796 Nov 17 14:36	0° $\underline{\text{A}}$			3802 Jun 19 03:09	0° Ω	
	3797 Jan 11 22:40	0° $\mathring{\text{M}}$			3802 Aug 04 13:21	0° $\mathring{\text{M}}$	
retrograde	3797 Mar 22 20:08	20° $\mathring{\text{M}}$ 36'22		evening set	3802 Aug 10 05:18	3° $\mathring{\text{M}}$ 37'22	
opposition	3797 Apr 30 16:06	11° $\mathring{\text{M}}$ 44'13	1°44'36		3802 Sep 20 15:41	0° $\underline{\text{A}}$	
greatest brilliancy	3797 May 01 02:22	11° $\mathring{\text{M}}$ 34'16	-1.4m				
min. Earth dist.	3797 May 05 07:37	9° $\mathring{\text{M}}$ 56'10	0.64015 AU	conjunction	3802 Sep 25 14:45	3° $\underline{\text{A}}$ 09'10	0°59'51
direct	3797 Jun 11 02:24	1° $\mathring{\text{M}}$ 42'59		minimum elong	3802 Sep 25 15:41	3° $\underline{\text{A}}$ 10'38	0°59'51
desc. node	3797 Jun 16 19:54	1° $\mathring{\text{M}}$ 55'17		max. Earth dist.	3802 Sep 24 15:40	2° $\underline{\text{A}}$ 32'29	2.67750 AU
	3797 Aug 31 16:13	0° \mathfrak{X}			3802 Nov 06 17:42	0° $\mathring{\text{M}}$	
	3797 Oct 18 18:18	0° \mathfrak{Z}		morning rise	3802 Nov 08 21:16	1° $\mathring{\text{M}}$ 22'33	
	3797 Nov 29 22:01	0° \approx			3802 Dec 23 06:39	0° \mathfrak{X}	
	3798 Jan 08 07:31	0° \mathfrak{X}		desc. node	3803 Feb 07 17:09	0° \mathfrak{Z} 25'54	
	3798 Feb 15 13:59	0° \mathfrak{Y}			3803 Feb 07 01:28	0° \mathfrak{Z}	
	3798 Mar 25 22:08	0° \mathfrak{X}			3803 Mar 24 04:20	0° \approx	
asc. node	3798 Apr 22 14:43	21° \mathfrak{X} 13'30			3803 May 08 00:04	0° \mathfrak{X}	
evening set	3798 May 04 01:16	29° \mathfrak{X} 50'09			3803 Jun 22 19:03	0° \mathfrak{Y}	

	3803 Aug 15 00:28	0°♄			3808 Jul 21 22:32	0°♄		
retrograde	3803 Sep 26 02:54	10°♄42'01			3808 Sep 10 01:09	0°♄		
min. Earth dist.	3803 Oct 22 19:56	6°♄14'50	0.38644 AU	desc. node	3808 Sep 29 13:49	12°♄22'34		
opposition	3803 Oct 28 06:11	4°♄40'21	-3°-10'-53		3808 Oct 26 10:14	0°♄		
greatest brilliancy	3803 Oct 27 12:35	4°♄53'10	-2.8m	evening set	3808 Dec 02 23:53	25°♄50'41		
	3803 Nov 17 23:35	30°♄			3808 Dec 08 20:29	0°♄		
direct	3803 Nov 27 03:44	29°♄26'20		max. Earth dist.	3808 Dec 17 07:59	6°♄04'15	2.46067 AU	
	3803 Dec 06 08:58	0°♄			3809 Jan 18 21:25	0°♄		
asc. node	3803 Dec 14 11:50	1°♄21'27						
	3804 Feb 18 16:06	0°♄		conjunction	3809 Jan 25 15:49	5°♄05'12	0°-57'-55	
	3804 Apr 09 09:32	0°♄		minimum elong	3809 Jan 25 14:10	5°♄02'05	0°57'55	
	3804 May 28 01:09	0°♄			3809 Feb 27 04:42	0°♄		
	3804 Jul 15 09:04	0°♄		morning rise	3809 Mar 28 20:14	23°♄09'55		
	3804 Sep 01 09:29	0°♄			3809 Apr 06 12:53	0°♄		
evening set	3804 Sep 15 13:10	8°♄55'26		greatest brilliancy	3809 Apr 26 05:15	15°♄28'38	1.2m	
max. Earth dist.	3804 Oct 16 18:27	28°♄49'32	2.65531 AU		3809 May 14 18:26	0°♄		
	3804 Oct 18 14:15	0°♄			3809 Jun 22 18:36	0°♄		
					3809 Aug 02 11:29	0°♄		
conjunction	3804 Oct 30 17:31	7°♄50'37	0°29'47	asc. node	3809 Aug 05 09:21	2°♄04'48		
minimum elong	3804 Oct 30 18:23	7°♄52'01	0°29'47		3809 Sep 14 22:49	0°♄		
	3804 Dec 03 10:59	0°♄			3809 Nov 02 05:15	0°♄		
morning rise	3804 Dec 14 13:19	7°♄25'08			3810 Jan 06 08:59	0°♄		
desc. node	3804 Dec 25 16:13	14°♄55'17		retrograde	3810 Feb 03 09:20	4°♄23'10		
	3805 Jan 16 17:12	0°♄			3810 Mar 01 05:25	30°♄		
	3805 Feb 28 09:19	0°♄		opposition	3810 Mar 15 15:37	24°♄35'38	4°14'04	
	3805 Apr 10 16:34	0°♄		greatest brilliancy	3810 Mar 15 11:46	24°♄39'30	-1.2m	
	3805 May 21 02:14	0°♄		min. Earth dist.	3810 Mar 14 23:24	24°♄51'52	0.67581 AU	
	3805 Jun 30 11:31	0°♄		direct	3810 Apr 25 04:23	14°♄52'45		
	3805 Aug 11 14:39	0°♄			3810 Jun 22 10:55	0°♄		
	3805 Sep 29 20:12	0°♄		desc. node	3810 Aug 17 12:27	28°♄59'09		
asc. node	3805 Oct 31 09:52	12°♄38'35			3810 Aug 19 06:20	0°♄		
retrograde	3805 Nov 20 20:12	15°♄27'15			3810 Oct 06 15:09	0°♄		
min. Earth dist.	3805 Dec 20 17:10	9°♄16'40	0.50981 AU		3810 Nov 19 12:54	0°♄		
greatest brilliancy	3805 Dec 27 08:23	6°♄48'26	-2.0m		3810 Dec 30 11:30	0°♄		
opposition	3805 Dec 28 14:28	6°♄20'14	2°54'47	evening set	3811 Jan 27 13:18	21°♄28'59		
	3806 Jan 19 00:26	30°♄			3811 Feb 07 11:46	0°♄		
direct	3806 Feb 01 02:48	28°♄50'38			3811 Mar 17 13:11	0°♄		
	3806 Feb 14 19:12	0°♄						
	3806 May 01 10:11	0°♄		conjunction	3811 Apr 03 21:23	13°♄42'44	0°-49'-9	
	3806 Jun 24 03:02	0°♄		minimum elong	3811 Apr 04 00:44	13°♄49'22	0°49'08	
	3806 Aug 13 07:28	0°♄			3811 Apr 24 14:34	0°♄		
	3806 Sep 30 06:54	0°♄		max. Earth dist.	3811 May 13 17:49	14°♄52'12	2.37851 AU	
evening set	3806 Oct 22 16:56	14°♄30'09			3811 Jun 02 12:57	0°♄		
max. Earth dist.	3806 Nov 11 18:54	27°♄47'27	2.58029 AU	morning rise	3811 Jun 13 19:33	8°♄28'58		
desc. node	3806 Nov 12 15:06	28°♄21'15		asc. node	3811 Jun 23 08:02	15°♄33'32		
	3806 Nov 15 02:01	0°♄			3811 Jul 13 02:38	0°♄		
					3811 Aug 24 22:37	0°♄		
conjunction	3806 Dec 08 17:57	16°♄06'13	0°-14'-47		3811 Oct 09 15:41	0°♄		
minimum elong	3806 Dec 08 17:23	16°♄05'14	0°14'48		3811 Nov 28 16:28	0°♄		
behind sun begin	3806 Dec 08 09:05	15°♄50'55			3812 Jan 30 19:50	0°♄		
behind sun end	3806 Dec 09 01:42	16°♄19'33		retrograde	3812 Mar 09 05:51	7°♄28'31		
	3806 Dec 28 16:04	0°♄			3812 Apr 13 06:02	30°♄		
morning rise	3807 Jan 27 07:11	21°♄14'47		opposition	3812 Apr 17 17:08	28°♄16'11	2°39'39	
	3807 Feb 08 05:51	0°♄		greatest brilliancy	3812 Apr 18 03:02	28°♄06'28	-1.3m	
	3807 Mar 20 05:12	0°♄		min. Earth dist.	3812 Apr 20 21:17	27°♄01'26	0.66309 AU	
	3807 Apr 28 04:41	0°♄		direct	3812 May 29 04:45	18°♄13'44		
	3807 Jun 05 23:21	0°♄		desc. node	3812 Jul 04 11:03	25°♄05'01		
	3807 Jul 15 13:18	0°♄			3812 Jul 17 09:43	0°♄		
	3807 Aug 26 08:15	0°♄			3812 Sep 12 15:27	0°♄		
asc. node	3807 Sep 18 08:54	15°♄22'14			3812 Oct 28 15:07	0°♄		
	3807 Oct 12 03:45	0°♄			3812 Dec 09 04:04	0°♄		
retrograde	3807 Dec 31 10:57	29°♄12'06			3813 Jan 17 07:43	0°♄		
min. Earth dist.	3808 Feb 04 18:59	21°♄03'36	0.62267 AU		3813 Feb 24 10:23	0°♄		
greatest brilliancy	3808 Feb 08 07:39	19°♄39'13	-1.5m		3813 Apr 03 14:37	0°♄		
opposition	3808 Feb 09 08:00	19°♄14'53	4°35'59	evening set	3813 Apr 08 08:14	3°♄40'49		
direct	3808 Mar 18 12:55	10°♄18'43		asc. node	3813 May 10 06:22	28°♄07'07		
	3808 May 25 20:42	0°♄			3813 May 12 18:21	0°♄		

conjunction	3813 Jun 12 12:29	22°II43'47	0°21'32	retrograde	3818 Aug 27 04:46	8°Y57'40	
minimum elong	3813 Jun 12 10:58	22°II41'02	0°21'30	opposition	3818 Sep 26 07:06	3°Y56'44	-5°-55'-44
	3813 Jun 22 14:19	0°S		greatest brilliancy	3818 Sep 26 09:08	3°Y55'23	-2.9m
max. Earth dist.	3813 Jul 23 05:08	21°S33'17	2.51174 AU	min. Earth dist.	3818 Sep 25 20:33	4°Y03'41	0.37061 AU
	3813 Aug 04 12:33	0°Q			3818 Oct 13 17:43	30°R8	
morning rise	3813 Aug 09 16:19	3°Q30'14		direct	3818 Oct 25 19:15	29°X02'25	
	3813 Sep 18 16:24	0°M			3818 Nov 06 22:22	0°Y	
	3813 Nov 05 04:42	0°A		asc. node	3818 Dec 31 03:02	21°Y15'13	
	3813 Dec 25 22:14	0°M			3819 Jan 15 12:49	0°8	
	3814 Feb 23 09:16	0°X			3819 Mar 04 21:09	0°II	
retrograde	3814 Apr 18 06:27	13°X17'33			3819 Apr 20 10:50	0°S	
desc. node	3814 May 22 09:33	6°X17'38			3819 Jun 06 06:44	0°Q	
opposition	3814 May 25 14:32	5°X06'14	0°-7'-55		3819 Jul 23 16:06	0°M	
greatest brilliancy	3814 Jan 23 10:04	15°M24'25	-2.8m	evening set	3819 Sep 02 07:58	25°M38'09	
min. Earth dist.	3814 Jun 01 08:22	2°X34'09	0.58559 AU		3819 Sep 09 05:41	0°A	
	3814 Jun 08 15:46	30°RM		max. Earth dist.	3819 Oct 08 14:43	18°A39'07	2.67054 AU
direct	3814 Jul 05 05:57	25°M22'46					
	3814 Aug 02 07:45	0°X		conjunction	3819 Oct 17 15:23	24°A25'20	0°43'34
	3814 Oct 02 13:16	0°S		minimum elong	3819 Oct 17 16:27	24°A27'02	0°43'34
	3814 Nov 16 02:08	0°≈			3819 Oct 26 08:00	0°M	
	3814 Dec 26 09:27	0°X		morning rise	3819 Nov 30 20:28	23°M03'48	
	3815 Feb 03 04:14	0°Y			3819 Dec 11 09:23	0°X	
	3815 Mar 13 22:38	0°8		desc. node	3820 Jan 12 06:49	21°X17'28	
asc. node	3815 Mar 28 06:04	10°854'50			3820 Jan 25 03:09	0°S	
	3815 Apr 22 17:16	0°II			3820 Mar 08 12:47	0°≈	
	3815 Jun 03 04:17	0°S			3820 Apr 19 18:39	0°X	
evening set	3815 Jun 09 23:55	4°S48'04			3820 May 31 07:59	0°Y	
	3815 Jul 16 14:48	0°Q			3820 Jul 12 09:02	0°8	
					3820 Aug 27 08:06	0°II	
conjunction	3815 Aug 02 23:59	11°Q38'42	1°02'36	retrograde	3820 Nov 01 12:20	23°II43'23	
minimum elong	3815 Aug 02 22:52	11°Q36'50	1°02'35	asc. node	3820 Nov 17 03:14	21°II55'38	
max. Earth dist.	3815 Aug 23 05:45	24°Q59'04	2.61768 AU	min. Earth dist.	3820 Nov 29 05:00	18°II26'06	0.45588 AU
	3815 Aug 30 22:24	0°M		opposition	3820 Dec 07 13:40	15°II32'07	1°11'47
morning rise	3815 Sep 20 22:29	13°M33'26		greatest brilliancy	3820 Dec 06 22:50	15°II45'02	-2.4m
	3815 Oct 16 18:38	0°A		direct	3821 Jan 09 04:50	8°II53'20	
	3815 Dec 03 20:31	0°M			3821 Mar 18 11:29	0°S	
	3816 Jan 22 11:32	0°X			3821 May 12 16:27	0°Q	
	3816 Mar 15 20:44	0°S			3821 Jul 02 11:12	0°M	
desc. node	3816 Apr 08 09:29	11°S37'34			3821 Aug 20 13:54	0°A	
retrograde	3816 Jun 09 23:52	29°S07'53			3821 Oct 07 04:02	0°M	
opposition	3816 Jul 13 10:16	22°S42'26	-4°-26'-30	evening set	3821 Oct 08 00:25	0°M32'43	
greatest brilliancy	3816 Jul 15 05:34	22°S06'45	-2.3m	max. Earth dist.	3821 Nov 01 04:12	16°M13'54	2.61557 AU
min. Earth dist.	3816 Jul 21 19:57	19°S57'35	0.45825 AU		3821 Nov 21 22:32	0°X	
direct	3816 Aug 18 21:41	14°S51'53					
	3816 Oct 09 07:00	0°≈		conjunction	3821 Nov 22 21:48	0°X38'58	0°03'36
	3816 Nov 27 01:44	0°X		minimum elong	3821 Nov 22 21:57	0°X39'13	0°03'37
	3817 Jan 08 01:17	0°Y		behind sun begin	3821 Nov 22 02:51	0°X07'14	
asc. node	3817 Feb 12 04:24	25°Y50'58		behind sun end	3821 Nov 23 17:03	1°X11'13	
	3817 Feb 17 20:03	0°8		desc. node	3821 Nov 29 05:35	4°X54'09	
	3817 Mar 31 05:11	0°II			3822 Jan 04 17:43	0°S	
	3817 May 13 00:28	0°S		morning rise	3822 Jan 08 22:12	2°S56'24	
	3817 Jun 26 12:26	0°Q			3822 Feb 15 16:03	0°≈	
evening set	3817 Jul 25 14:25	19°Q04'02			3822 Mar 28 01:41	0°X	
	3817 Aug 11 11:58	0°M			3822 May 06 11:24	0°Y	
					3822 Jun 14 16:13	0°8	
conjunction	3817 Sep 11 07:19	19°M44'23	1°05'57		3822 Jul 24 19:20	0°II	
minimum elong	3817 Sep 11 07:53	19°M45'17	1°05'56		3822 Sep 05 18:40	0°S	
max. Earth dist.	3817 Sep 15 21:36	22°M40'08	2.67145 AU	asc. node	3822 Oct 05 02:28	18°S11'34	
	3817 Sep 27 09:54	0°A			3822 Oct 27 09:58	0°Q	
morning rise	3817 Oct 26 04:39	18°A17'28		retrograde	3822 Dec 16 17:21	13°Q51'44	
	3817 Nov 13 14:50	0°M		min. Earth dist.	3823 Jan 19 01:06	6°Q24'57	0.58438 AU
	3817 Dec 30 16:08	0°X		greatest brilliancy	3823 Jan 23 18:20	4°Q33'37	-1.7m
	3818 Feb 15 12:43	0°S		opposition	3823 Jan 25 00:59	4°Q03'23	4°17'08
desc. node	3818 Feb 24 08:38	5°S39'09			3823 Feb 05 01:25	30°R8	
	3818 Apr 03 14:15	0°≈		direct	3823 Mar 02 22:45	25°S35'13	
	3818 May 22 04:02	0°X			3823 Mar 31 11:09	0°Q	
	3818 Jul 18 12:32	0°Y			3823 Jun 08 03:31	0°M	

	3823 Jul 31 08:51	0°♄			3828 Jun 29 21:50	0°♄	
	3823 Sep 18 09:53	0°♌		max. Earth dist.	3828 Jul 05 23:53	4°♄21'47	2.45880 AU
desc. node	3823 Oct 17 04:39	18°♌31'40		morning rise	3828 Jul 20 17:38	14°♄47'40	
	3823 Nov 03 11:43	0°♊			3828 Aug 11 17:17	0°♌	
evening set	3823 Nov 16 12:24	8°♊49'00			3828 Sep 25 22:54	0°♍	
max. Earth dist.	3823 Dec 01 16:55	19°♊17'14	2.51141 AU		3828 Nov 13 01:43	0°♄	
	3823 Dec 16 22:35	0°♈			3829 Jan 05 02:38	0°♌	
				retrograde	3829 Apr 01 15:33	28°♌51'02	
conjunction	3824 Jan 05 19:50	14°♈17'37	0°-43'-26	opposition	3829 May 10 00:17	20°♌11'48	1°07'04
minimum elong	3824 Jan 05 18:12	14°♈14'38	0°43'27	greatest brilliancy	3829 May 10 08:25	20°♌04'00	-1.5m
	3824 Jan 27 03:37	0°♋		min. Earth dist.	3829 May 15 10:17	18°♌06'50	0.62333 AU
morning rise	3824 Mar 01 21:42	26°♋19'38		desc. node	3829 Jun 08 01:17	11°♌13'14	
	3824 Mar 06 16:11	0°♋		direct	3829 Jun 20 06:12	10°♌14'03	
	3824 Apr 14 05:08	0°♍			3829 Aug 24 03:50	0°♊	
	3824 May 22 14:18	0°♉			3829 Oct 13 15:16	0°♈	
	3824 Jun 30 17:40	0°♊			3829 Nov 25 10:05	0°♋	
	3824 Aug 10 15:58	0°♄			3830 Jan 04 01:41	0°♋	
asc. node	3824 Aug 22 00:49	7°♄59'28			3830 Feb 11 11:21	0°♍	
	3824 Sep 23 19:44	0°♌			3830 Mar 21 21:59	0°♉	
	3824 Nov 13 20:47	0°♍		asc. node	3830 Apr 13 21:13	17°♉35'46	
retrograde	3825 Jan 21 02:16	21°♍24'25			3830 Apr 30 08:57	0°♊	
min. Earth dist.	3825 Feb 28 03:28	12°♍22'10	0.66275 AU	evening set	3830 May 18 22:31	13°♊42'41	
opposition	3825 Mar 02 08:16	11°♍29'15	4°32'22		3830 Jun 10 12:23	0°♄	
greatest brilliancy	3825 Mar 01 20:27	11°♍41'06	-1.3m				
direct	3825 Apr 11 02:46	2°♍01'17		conjunction	3830 Jul 15 20:50	24°♄40'20	0°51'54
	3825 Jul 05 13:21	0°♄		minimum elong	3830 Jul 15 19:01	24°♄37'15	0°51'53
	3825 Aug 27 22:17	0°♌			3830 Jul 23 16:30	0°♌	
desc. node	3825 Sep 03 03:04	3°♌46'08		max. Earth dist.	3830 Aug 12 11:21	13°♌17'47	2.58212 AU
	3825 Oct 14 06:34	0°♊		morning rise	3830 Sep 05 14:53	29°♌11'26	
	3825 Nov 26 22:08	0°♈			3830 Sep 06 20:44	0°♍	
evening set	3826 Jan 03 15:44	27°♈35'17			3830 Oct 23 20:07	0°♄	
	3826 Jan 06 20:51	0°♋			3830 Dec 11 14:28	0°♌	
max. Earth dist.	3826 Jan 31 16:16	18°♋54'47	2.38385 AU		3831 Feb 01 07:21	0°♊	
	3826 Feb 14 23:16	0°♋			3831 Apr 04 11:20	0°♈	
				desc. node	3831 Apr 25 23:55	6°♈41'06	
conjunction	3826 Mar 05 21:12	14°♋49'43	-1°-3'-27	retrograde	3831 May 18 13:16	9°♈29'09	
minimum elong	3826 Mar 05 22:28	14°♋52'11	1°03'28	opposition	3831 Jun 22 17:48	2°♈15'01	-2°-36'-3
	3826 Mar 25 02:34	0°♍		greatest brilliancy	3831 Jun 23 20:47	1°♈51'05	-2.0m
	3826 May 02 04:34	0°♉			3831 Jun 29 02:03	30°♋♊	
morning rise	3826 May 15 17:08	10°♉31'57		min. Earth dist.	3831 Jul 01 00:12	29°♊19'57	0.51172 AU
	3826 Jun 10 02:22	0°♊		direct	3831 Jul 31 10:03	23°♊22'35	
asc. node	3826 Jul 10 00:30	22°♊17'18			3831 Sep 02 10:55	0°♈	
	3826 Jul 20 15:18	0°♄			3831 Oct 28 12:08	0°♋	
	3826 Sep 01 13:35	0°♌			3831 Dec 10 10:35	0°♋	
	3826 Oct 17 20:08	0°♍			3832 Jan 19 11:26	0°♍	
	3826 Dec 09 06:10	0°♄			3832 Feb 28 02:44	0°♉	
retrograde	3827 Feb 24 09:59	24°♄44'48		asc. node	3832 Feb 29 20:57	1°♉19'15	
opposition	3827 Apr 05 07:55	15°♄16'04	3°24'04		3832 Apr 08 15:20	0°♊	
greatest brilliancy	3827 Apr 05 14:05	15°♄09'57	-1.2m		3832 May 20 18:12	0°♄	
min. Earth dist.	3827 Apr 07 00:01	14°♄36'19	0.67594 AU		3832 Jul 03 17:38	0°♌	
direct	3827 May 16 14:39	5°♄17'58		evening set	3832 Jul 08 20:22	3°♌24'43	
desc. node	3827 Jul 22 02:02	24°♄30'46			3832 Aug 18 09:03	0°♍	
	3827 Aug 02 02:58	0°♌					
	3827 Sep 22 22:54	0°♊		conjunction	3832 Aug 27 11:04	5°♍52'02	1°08'16
	3827 Nov 06 19:45	0°♈		minimum elong	3832 Aug 27 11:06	5°♍52'05	1°08'15
	3827 Dec 18 00:38	0°♋		max. Earth dist.	3832 Sep 06 18:12	12°♍29'20	2.65699 AU
	3828 Jan 26 01:48	0°♋			3832 Oct 04 04:35	0°♄	
	3828 Mar 04 03:02	0°♍		morning rise	3832 Oct 12 11:22	5°♄15'36	
evening set	3828 Mar 10 16:05	5°♍10'38			3832 Nov 20 14:47	0°♌	
	3828 Apr 11 05:09	0°♉			3833 Jan 07 09:10	0°♊	
					3833 Feb 24 19:27	0°♈	
conjunction	3828 May 18 04:30	28°♉27'01	0°-5'-56	desc. node	3833 Mar 12 22:59	9°♈48'04	
minimum elong	3828 May 18 05:01	28°♉28'00	0°05'57		3833 Apr 16 08:29	0°♋	
behind sun begin	3828 May 17 02:31	27°♉37'54			3833 Jun 15 22:16	0°♋	
behind sun end	3828 May 19 07:30	29°♉18'03		retrograde	3833 Jul 25 10:56	8°♋21'56	
	3828 May 20 05:43	0°♊		opposition	3833 Aug 24 22:29	3°♋13'24	-6°-38'-42
asc. node	3828 May 26 23:12	5°♊03'39		greatest brilliancy	3833 Aug 26 10:43	2°♋48'06	-2.8m

min. Earth dist.	3833 Aug 29 19:11	1° H 52'10	0.38817 AU	conjunction	3838 Dec 18 10:41	26° Z 05'57	0°-25'-37
	3833 Sep 06 01:25	30° R \approx		minimum elong	3838 Dec 18 09:40	26° Z 04'11	0°25'37
direct	3833 Sep 25 18:35	27° \approx 30'41			3838 Dec 23 23:34	0° Z	
	3833 Oct 14 23:57	0° H			3839 Feb 03 10:23	0° \approx	
	3833 Dec 16 08:23	0° Y		morning rise	3839 Feb 07 22:06	3° \approx 19'42	
asc. node	3834 Jan 16 20:34	20° Y 27'46			3839 Mar 15 06:02	0° H	
	3834 Jan 30 23:53	0° B			3839 Apr 23 01:40	0° Y	
	3834 Mar 15 23:21	0° II			3839 May 31 16:21	0° B	
	3834 Apr 29 11:04	0° S			3839 Jul 10 01:15	0° II	
	3834 Jun 14 02:19	0° Q			3839 Aug 20 09:34	0° S	
	3834 Jul 30 18:58	0° M		asc. node	3839 Sep 08 18:06	13° S 14'49	
evening set	3834 Aug 18 19:19	12° M 05'35			3839 Oct 04 19:44	0° Q	
	3834 Sep 16 00:32	0° A			3839 Dec 02 01:34	0° M	
max. Earth dist.	3834 Sep 29 20:18	8° A 46'51	2.67733 AU	retrograde	3840 Jan 08 11:32	7° M 49'37	
					3840 Feb 12 04:21	30° R Q	
conjunction	3834 Oct 03 16:25	11° A 13'17	0°54'42	min. Earth dist.	3840 Feb 13 19:53	29° Q 20'49	0.63962 AU
minimum elong	3834 Oct 03 17:27	11° A 14'56	0°54'41	opposition	3840 Feb 17 13:16	27° Q 51'22	4°38'54
	3834 Nov 02 02:15	0° M		greatest brilliancy	3840 Feb 16 17:09	28° Q 11'31	-1.4m
morning rise	3834 Nov 16 19:06	9° M 27'14		direct	3840 Mar 27 08:53	18° Q 42'38	
	3834 Dec 18 10:38	0° Z			3840 May 15 09:57	0° M	
desc. node	3835 Jan 28 21:51	27° Z 23'34			3840 Jul 15 20:51	0° A	
	3835 Feb 01 19:32	0° Z			3840 Sep 04 22:30	0° M	
	3835 Mar 18 04:57	0° \approx		desc. node	3840 Sep 19 18:58	9° M 17'33	
	3835 Apr 30 20:41	0° H			3840 Oct 21 15:20	0° Z	
	3835 Jun 13 11:39	0° Y			3840 Dec 04 03:46	0° Z	
	3835 Jul 29 14:33	0° B		evening set	3840 Dec 13 18:07	6° Z 52'40	
retrograde	3835 Oct 10 19:42	27° B 47'23		max. Earth dist.	3840 Dec 29 12:37	18° Z 22'18	2.43148 AU
min. Earth dist.	3835 Nov 06 07:18	23° B 11'31	0.40695 AU		3841 Jan 14 04:01	0° \approx	
opposition	3835 Nov 13 12:17	20° B 56'50	-1°-23'-58				
greatest brilliancy	3835 Nov 12 23:55	21° B 06'29	-2.7m	conjunction	3841 Feb 07 20:22	18° \approx 45'12	-1°-3'-9
asc. node	3835 Dec 04 19:17	15° B 50'33		minimum elong	3841 Feb 07 19:19	18° \approx 43'10	1°03'10
direct	3835 Dec 14 03:55	15° B 14'51			3841 Feb 22 09:32	0° H	
	3836 Feb 06 00:28	0° II			3841 Apr 01 15:42	0° Y	
	3836 Apr 02 00:59	0° S		morning rise	3841 Apr 14 17:58	10° Y 19'21	
	3836 May 22 06:18	0° Q			3841 May 09 19:25	0° B	
	3836 Jul 10 06:56	0° M			3841 Jun 17 17:59	0° II	
	3836 Aug 27 15:26	0° A		asc. node	3841 Jul 26 16:12	28° II 47'59	
evening set	3836 Sep 23 16:42	17° A 02'56			3841 Jul 28 08:12	0° S	
	3836 Oct 13 23:13	0° M			3841 Sep 09 12:18	0° Q	
max. Earth dist.	3836 Oct 22 07:18	5° M 22'41	2.64338 AU		3841 Oct 26 18:31	0° M	
					3841 Dec 23 05:29	0° A	
conjunction	3836 Nov 08 00:00	16° M 14'59	0°20'39	retrograde	3842 Feb 11 00:22	12° A 08'11	
minimum elong	3836 Nov 08 00:39	16° M 16'03	0°20'39	opposition	3842 Mar 23 04:34	2° A 26'23	3°58'29
	3836 Nov 28 19:11	0° Z		greatest brilliancy	3842 Mar 23 04:41	2° A 26'16	-1.2m
desc. node	3836 Dec 15 20:19	11° Z 27'13		min. Earth dist.	3842 Mar 23 08:10	2° A 22'48	0.67877 AU
morning rise	3836 Dec 23 09:40	16° Z 35'18			3842 Mar 29 09:07	30° R M	
	3837 Jan 11 21:40	0° Z		direct	3842 May 03 01:00	22° M 37'08	
	3837 Feb 23 07:14	0° \approx			3842 Jun 10 11:32	0° A	
	3837 Apr 05 06:13	0° H		desc. node	3842 Aug 07 17:20	27° A 02'24	
	3837 May 15 05:55	0° Y			3842 Aug 13 00:51	0° M	
	3837 Jun 24 02:01	0° B			3842 Oct 01 09:34	0° Z	
	3837 Aug 04 04:40	0° II			3842 Nov 14 15:11	0° Z	
	3837 Sep 18 18:47	0° S			3842 Dec 25 16:08	0° \approx	
asc. node	3837 Oct 21 18:20	17° S 09'57			3843 Feb 02 16:47	0° H	
retrograde	3837 Nov 30 17:44	26° S 44'57		evening set	3843 Feb 11 08:24	6° H 46'56	
min. Earth dist.	3837 Dec 31 21:08	20° S 05'32	0.53808 AU		3843 Mar 12 17:50	0° Y	
greatest brilliancy	3838 Jan 06 19:32	17° S 49'24	-1.9m		3843 Apr 19 18:42	0° B	
opposition	3838 Jan 08 04:15	17° S 17'58	3°34'26				
direct	3838 Feb 12 14:05	9° S 24'59		conjunction	3843 Apr 20 15:34	0° B 40'48	0°-35'-9
	3838 Apr 22 12:33	0° Q		minimum elong	3843 Apr 20 18:39	0° B 46'50	0°35'08
	3838 Jun 18 03:18	0° M			3843 May 28 16:52	0° II	
	3838 Aug 08 05:04	0° A		max. Earth dist.	3843 Jun 11 03:50	10° II 06'50	2.40420 AU
	3838 Sep 25 12:49	0° M		asc. node	3843 Jun 13 15:19	11° II 57'36	
evening set	3838 Oct 31 10:53	23° M 20'34		morning rise	3843 Jun 28 15:11	23° II 00'43	
desc. node	3838 Nov 02 19:40	24° M 54'54			3843 Jul 08 06:11	0° S	
	3838 Nov 10 10:19	0° Z			3843 Aug 20 00:21	0° Q	
max. Earth dist.	3838 Nov 18 14:14	5° Z 30'15	2.55737 AU		3843 Oct 04 10:59	0° M	

	3843 Nov 22 13:18	0°♄		asc. node	3849 Feb 02 12:25	23°♄30'20	
	3844 Jan 19 00:26	0°♌			3849 Feb 11 12:46	0°♄	
retrograde	3844 Mar 17 11:59	15°♌23'43			3849 Mar 25 13:15	0°♈	
opposition	3844 Apr 25 15:01	6°♌21'58	2°08'47		3849 May 07 19:22	0°♊	
greatest brilliancy	3844 Apr 26 01:29	6°♌11'45	-1.3m		3849 Jun 21 14:53	0°♈	
min. Earth dist.	3844 Apr 29 14:21	4°♌48'55	0.65170 AU	evening set	3849 Aug 03 15:23	27°♈58'02	
	3844 May 13 05:25	30°♌♌			3849 Aug 06 19:17	0°♎	
direct	3844 Jun 06 02:22	26°♌19'25					
desc. node	3844 Jun 24 15:52	28°♌18'55		conjunction	3849 Sep 19 13:23	27°♎56'15	1°02'48
	3844 Jul 01 18:38	0°♌		minimum elong	3849 Sep 19 14:11	27°♎57'32	1°02'48
	3844 Sep 05 21:38	0°♌		max. Earth dist.	3849 Sep 21 02:21	28°♎55'03	2.67584 AU
	3844 Oct 23 01:24	0°♊			3849 Sep 22 19:12	0°♌	
	3844 Dec 03 23:23	0°♊		morning rise	3849 Nov 03 01:01	26°♌14'47	
	3845 Jan 12 06:55	0°♈			3849 Nov 08 22:14	0°♌	
	3845 Feb 19 11:42	0°♄			3849 Dec 25 16:28	0°♌	
	3845 Mar 29 17:27	0°♄			3850 Feb 09 22:00	0°♊	
evening set	3845 Apr 23 17:14	19°♈14'21		desc. node	3850 Feb 14 12:45	3°♊00'38	
asc. node	3845 Apr 30 15:09	24°♈29'12			3850 Mar 27 18:55	0°♊	
	3845 May 07 22:47	0°♈			3850 May 12 22:04	0°♈	
	3845 Jun 17 20:11	0°♊			3850 Jun 30 13:13	0°♄	
				retrograde	3850 Sep 13 14:47	27°♄24'46	
conjunction	3845 Jun 25 08:46	5°♊21'57	0°34'33	min. Earth dist.	3850 Oct 11 04:45	22°♄53'26	0.37547 AU
minimum elong	3845 Jun 25 06:49	5°♊18'29	0°34'31	opposition	3850 Oct 14 14:26	21°♄57'17	-4°-31'-27
	3845 Jul 30 19:04	0°♈		greatest brilliancy	3850 Oct 14 01:35	22°♄06'09	-2.9m
max. Earth dist.	3845 Jul 31 08:06	0°♈22'12	2.53848 AU	direct	3850 Nov 13 02:54	16°♄58'58	
morning rise	3845 Aug 19 23:11	13°♈35'33		asc. node	3850 Dec 21 12:16	25°♄30'46	
	3845 Sep 13 21:33	0°♎			3850 Dec 31 22:55	0°♄	
	3845 Oct 31 03:06	0°♌			3851 Feb 24 16:41	0°♈	
	3845 Dec 19 22:27	0°♌			3851 Apr 14 04:26	0°♊	
	3846 Feb 13 07:46	0°♌			3851 May 31 21:42	0°♈	
retrograde	3846 Apr 28 13:06	22°♌33'41			3851 Jul 18 18:25	0°♎	
desc. node	3846 May 12 14:53	21°♌18'20			3851 Sep 04 13:51	0°♌	
opposition	3846 Jun 04 04:28	14°♌40'27	0°-57'-50	evening set	3851 Sep 10 11:35	3°♌43'37	
greatest brilliancy	3846 Jun 04 13:51	14°♌31'46	-1.8m	max. Earth dist.	3851 Oct 13 20:30	24°♌56'19	2.66313 AU
min. Earth dist.	3846 Jun 11 13:38	11°♌56'47	0.56114 AU		3851 Oct 21 17:47	0°♌	
direct	3846 Jul 14 06:51	5°♌10'15					
	3846 Sep 24 02:16	0°♊		conjunction	3851 Oct 25 16:09	2°♌31'51	0°35'49
	3846 Nov 09 15:24	0°♊		minimum elong	3851 Oct 25 17:07	2°♌33'25	0°35'49
	3846 Dec 20 14:18	0°♈			3851 Dec 06 17:09	0°♌	
	3847 Jan 28 17:08	0°♄		morning rise	3851 Dec 09 03:45	1°♌37'14	
	3847 Mar 08 17:03	0°♄		desc. node	3852 Jan 02 12:00	17°♌56'10	
asc. node	3847 Mar 18 13:54	7°♈29'56			3852 Jan 20 05:01	0°♊	
	3847 Apr 17 16:30	0°♈			3852 Mar 03 05:01	0°♊	
	3847 May 29 07:45	0°♊			3852 Apr 13 21:56	0°♈	
evening set	3847 Jun 21 09:04	16°♊02'20			3852 May 24 18:28	0°♄	
	3847 Jul 11 21:30	0°♈			3852 Jul 04 17:22	0°♄	
					3852 Aug 16 23:09	0°♈	
conjunction	3847 Aug 12 14:21	21°♈03'59	1°06'08		3852 Oct 10 21:56	0°♊	
minimum elong	3847 Aug 12 13:40	21°♈02'52	1°06'07	asc. node	3852 Nov 07 10:44	6°♊44'36	
	3847 Aug 26 06:43	0°♎		retrograde	3852 Nov 12 20:16	6°♊57'15	
max. Earth dist.	3847 Aug 29 02:01	1°♎49'15	2.63388 AU	min. Earth dist.	3852 Dec 11 17:10	1°♊10'08	0.48590 AU
morning rise	3847 Sep 29 07:35	21°♎53'51			3852 Dec 14 23:22	30°♎♎	
	3847 Oct 12 01:32	0°♌		opposition	3852 Dec 19 21:54	28°♎11'36	2°17'02
	3847 Nov 28 20:05	0°♌		greatest brilliancy	3852 Dec 18 20:14	28°♎35'02	-2.2m
	3848 Jan 16 15:19	0°♌		direct	3853 Jan 22 14:47	21°♎03'17	
	3848 Mar 07 15:06	0°♊			3853 Mar 04 19:44	0°♊	
desc. node	3848 Mar 29 13:45	12°♊02'48			3853 May 05 16:29	0°♈	
	3848 May 05 20:13	0°♊			3853 Jun 26 23:14	0°♎	
retrograde	3848 Jun 25 02:16	12°♊14'40			3853 Aug 15 16:12	0°♌	
opposition	3848 Jul 27 09:23	6°♊18'55	-5°-27'-18		3853 Oct 02 12:09	0°♌	
greatest brilliancy	3848 Jul 29 09:23	5°♊41'34	-2.5m	evening set	3853 Oct 16 08:00	8°♌54'33	
min. Earth dist.	3848 Aug 04 06:28	3°♊52'46	0.43001 AU	max. Earth dist.	3853 Nov 07 05:12	23°♌15'24	2.59706 AU
	3848 Aug 20 15:26	30°♌♌			3853 Nov 17 07:59	0°♌	
direct	3848 Aug 31 08:34	29°♌12'10		desc. node	3853 Nov 19 10:55	1°♌25'25	
	3848 Sep 11 03:01	0°♊					
	3848 Nov 17 10:45	0°♈		conjunction	3853 Dec 01 18:44	9°♌45'18	0°-6'-59
	3848 Dec 31 17:15	0°♄		minimum elong	3853 Dec 01 18:29	9°♌44'53	0°07'00

behind sun begin	3853 Dec 01 00:20	9°♂14'02		opposition	3859 Apr 12 23:14	23°♂09'43	2°59'13
behind sun end	3853 Dec 02 12:39	10°♂15'45		greatest brilliancy	3859 Apr 13 07:42	23°♂01'21	-1.3m
	3853 Dec 31 01:25	0°♂		min. Earth dist.	3859 Apr 15 10:51	22°♂10'53	0.67011 AU
morning rise	3854 Jan 19 01:28	13°♂29'18		direct	3859 May 24 09:06	13°♂08'41	
	3854 Feb 10 19:47	0°♂		desc. node	3859 Jul 12 06:42	24°♂39'58	
	3854 Mar 23 00:08	0°♂			3859 Jul 24 10:55	0°♂	
	3854 May 01 04:10	0°♂			3859 Sep 17 01:07	0°♂	
	3854 Jun 09 02:28	0°♂			3859 Nov 01 14:13	0°♂	
	3854 Jul 18 20:25	0°♂			3859 Dec 13 00:39	0°♂	
	3854 Aug 29 23:24	0°♂			3860 Jan 21 03:47	0°♂	
asc. node	3854 Sep 25 09:25	17°♂13'54		greatest brilliancy	3860 Feb 16 03:40	20°♂26'28	1.2m
	3854 Oct 17 01:49	0°♂			3860 Feb 28 05:52	0°♂	
retrograde	3854 Dec 25 06:48	23°♂17'44		evening set	3860 Mar 26 22:25	21°♂50'27	
min. Earth dist.	3855 Jan 28 17:58	15°♂27'13	0.60676 AU		3860 Apr 06 08:33	0°♂	
opposition	3855 Feb 02 23:03	13°♂23'00	4°30'48		3860 May 15 09:51	0°♂	
greatest brilliancy	3855 Feb 01 19:25	13°♂50'30	-1.5m	asc. node	3860 May 17 06:36	1°♂24'16	
direct	3855 Mar 12 14:42	4°♂38'39					
	3855 May 31 13:11	0°♂		conjunction	3860 Jun 01 22:08	13°♂04'43	0°10'24
	3855 Jul 25 19:14	0°♂		minimum elong	3860 Jun 01 21:18	13°♂03'11	0°10'23
	3855 Sep 13 11:23	0°♂		behind sun begin	3860 Jun 01 00:36	12°♂24'53	
desc. node	3855 Oct 07 09:36	15°♂15'34		behind sun end	3860 Jun 02 18:00	13°♂41'26	
	3855 Oct 29 18:33	0°♂			3860 Jun 25 02:53	0°♂	
evening set	3855 Nov 26 05:36	18°♂43'55		max. Earth dist.	3860 Jul 16 14:13	15°♂14'36	2.48864 AU
max. Earth dist.	3855 Dec 10 16:38	28°♂52'53	2.48390 AU	morning rise	3860 Aug 01 09:29	26°♂12'33	
	3855 Dec 12 06:29	0°♂			3860 Aug 06 22:18	0°♂	
					3860 Sep 21 01:19	0°♂	
conjunction	3856 Jan 17 05:54	26°♂08'23	0°-52'-22		3860 Nov 07 17:31	0°♂	
minimum elong	3856 Jan 17 04:08	26°♂05'06	0°52'22		3860 Dec 29 04:44	0°♂	
	3856 Jan 22 10:19	0°♂			3861 Mar 03 08:05	0°♂	
	3856 Mar 01 20:40	0°♂		retrograde	3861 Apr 10 22:42	7°♂26'08	
morning rise	3856 Mar 16 13:12	11°♂24'21			3861 May 16 04:01	30°♂	
	3856 Apr 09 07:15	0°♂		opposition	3861 May 18 18:06	29°♂01'30	0°25'07
	3856 May 17 13:59	0°♂		greatest brilliancy	3861 May 18 21:47	28°♂57'59	-1.6m
	3856 Jun 25 14:31	0°♂		min. Earth dist.	3861 May 24 21:38	26°♂41'14	0.60358 AU
	3856 Aug 05 08:00	0°♂		desc. node	3861 May 29 05:24	25°♂06'08	
asc. node	3856 Aug 12 09:43	5°♂01'51		direct	3861 Jun 28 16:45	19°♂10'22	
	3856 Sep 17 22:58	0°♂			3861 Aug 12 23:26	0°♂	
	3856 Nov 06 00:07	0°♂			3861 Oct 06 22:21	0°♂	
retrograde	3857 Jan 28 18:11	29°♂23'47			3861 Nov 19 16:00	0°♂	
min. Earth dist.	3857 Mar 08 15:54	20°♂05'08	0.67126 AU		3861 Dec 29 16:26	0°♂	
opposition	3857 Mar 10 00:50	19°♂32'08	4°23'03		3862 Feb 06 07:02	0°♂	
greatest brilliancy	3857 Mar 09 17:28	19°♂39'30	-1.2m		3862 Mar 16 21:09	0°♂	
direct	3857 Apr 19 06:11	9°♂55'30		asc. node	3862 Apr 04 06:24	14°♂03'54	
	3857 Jun 27 13:12	0°♂			3862 Apr 25 11:07	0°♂	
	3857 Aug 22 06:33	0°♂		evening set	3862 May 31 18:38	26°♂28'32	
desc. node	3857 Aug 24 07:57	1°♂13'11			3862 Jun 05 17:23	0°♂	
	3857 Oct 09 05:56	0°♂			3862 Jul 18 23:31	0°♂	
	3857 Nov 22 02:30	0°♂					
	3858 Jan 02 02:14	0°♂		conjunction	3862 Jul 26 10:11	5°♂01'33	0°58'49
evening set	3858 Jan 16 17:58	11°♂07'02		minimum elong	3862 Jul 26 08:44	4°♂59'07	0°58'48
	3858 Feb 10 04:09	0°♂		max. Earth dist.	3862 Aug 18 21:02	20°♂38'00	2.60273 AU
	3858 Mar 20 06:40	0°♂			3862 Sep 02 04:25	0°♂	
				morning rise	3862 Sep 14 12:11	7°♂59'13	
conjunction	3858 Mar 21 23:05	1°♂19'56	0°-57'-10		3862 Oct 19 00:50	0°♂	
minimum elong	3858 Mar 22 01:50	1°♂25'22	0°57'11		3862 Dec 06 08:19	0°♂	
max. Earth dist.	3858 Mar 21 18:49	1°♂11'30	2.36917 AU		3863 Jan 25 16:59	0°♂	
	3858 Apr 27 07:58	0°♂			3863 Mar 22 14:44	0°♂	
morning rise	3858 Jun 01 12:43	27°♂11'56		desc. node	3863 Apr 16 04:55	10°♂43'26	
	3858 Jun 05 05:14	0°♂		retrograde	3863 May 31 07:20	20°♂41'37	
asc. node	3858 Jun 30 08:37	18°♂47'43		opposition	3863 Jul 04 13:59	13°♂53'20	-3°-38'-18
	3858 Jul 15 17:20	0°♂		greatest brilliancy	3863 Jul 06 03:04	13°♂21'39	-2.2m
	3858 Aug 27 12:18	0°♂		min. Earth dist.	3863 Jul 13 01:57	11°♂00'17	0.48217 AU
	3858 Oct 12 08:20	0°♂		direct	3863 Aug 11 03:21	5°♂32'12	
	3858 Dec 02 02:01	0°♂			3863 Oct 18 19:30	0°♂	
	3859 Feb 11 03:22	0°♂			3863 Dec 03 05:39	0°♂	
retrograde	3859 Mar 04 07:05	2°♂29'56			3864 Jan 13 04:53	0°♂	
	3859 Mar 23 23:24	30°♂		asc. node	3864 Feb 20 05:09	28°♂22'52	

	3864 Feb 22 09:25	0°♄		desc. node	3868 Dec 06 01:30	7°♄58'45	
	3864 Apr 03 07:31	0°♂		morning rise	3869 Jan 01 14:41	26°♄08'55	
	3864 May 15 17:55	0°♂			3869 Jan 07 03:40	0°♂	
	3864 Jun 28 22:45	0°♂			3869 Feb 18 07:45	0°♂	
evening set	3864 Jul 18 13:36	12°♂57'52			3869 Mar 30 23:35	0°♄	
	3864 Aug 13 17:39	0°♄			3869 May 09 15:28	0°♄	
					3869 Jun 18 02:03	0°♄	
conjunction	3864 Sep 05 01:03	14°♄20'47	1°07'23		3869 Jul 28 12:40	0°♂	
minimum elong	3864 Sep 05 01:26	14°♄21'23	1°07'23		3869 Sep 10 06:08	0°♂	
max. Earth dist.	3864 Sep 12 02:48	18°♄52'13	2.66608 AU	asc. node	3869 Oct 12 03:17	18°♂46'53	
	3864 Sep 29 13:52	0°♄			3869 Nov 05 13:10	0°♂	
morning rise	3864 Oct 20 08:47	13°♄12'16		retrograde	3869 Dec 10 01:00	7°♂13'14	
	3864 Nov 15 20:42	0°♄		min. Earth dist.	3870 Jan 11 09:58	0°♂06'56	0.56452 AU
	3865 Jan 02 05:05	0°♄			3870 Jan 11 17:12	30°♄	
	3865 Feb 18 16:23	0°♂		greatest brilliancy	3870 Jan 16 15:56	28°♂04'17	-1.8m
desc. node	3865 Mar 03 04:08	7°♂50'16		opposition	3870 Jan 18 00:28	27°♂32'29	4°02'51
	3865 Apr 07 23:27	0°♂		direct	3870 Feb 23 06:24	19°♂19'14	
	3865 May 29 15:13	0°♄			3870 Apr 10 23:44	0°♂	
retrograde	3865 Aug 12 19:49	25°♄35'22			3870 Jun 11 17:33	0°♄	
opposition	3865 Sep 11 20:24	20°♄39'09	-6°-32'-29		3870 Aug 02 23:21	0°♄	
greatest brilliancy	3865 Sep 12 14:37	20°♄27'02	-2.9m		3870 Sep 20 17:33	0°♄	
min. Earth dist.	3865 Sep 13 22:55	20°♄05'36	0.37440 AU	desc. node	3870 Oct 24 00:26	21°♄30'49	
direct	3865 Oct 12 01:47	15°♄31'31			3870 Nov 05 18:48	0°♄	
	3865 Dec 01 19:06	0°♄		evening set	3870 Nov 09 11:07	2°♄28'22	
asc. node	3866 Jan 07 03:12	20°♄28'43		max. Earth dist.	3870 Nov 25 20:55	13°♄38'06	2.53278 AU
	3866 Jan 22 07:57	0°♄			3870 Dec 19 07:56	0°♂	
	3866 Mar 09 06:00	0°♂					
	3866 Apr 23 17:47	0°♂		conjunction	3870 Dec 28 14:52	6°♂36'40	0°-36'-6
	3866 Jun 08 22:59	0°♂		minimum elong	3870 Dec 28 13:28	6°♂34'10	0°36'06
	3866 Jul 26 00:01	0°♄			3871 Jan 29 16:34	0°♂	
evening set	3866 Aug 27 04:25	20°♄22'02		morning rise	3871 Feb 20 10:39	16°♂19'12	
	3866 Sep 11 09:43	0°♄			3871 Mar 10 08:47	0°♄	
max. Earth dist.	3866 Oct 04 23:25	14°♄57'57	2.67465 AU		3871 Apr 18 00:52	0°♄	
					3871 May 26 12:04	0°♄	
conjunction	3866 Oct 11 16:21	19°♄14'20	0°48'32		3871 Jul 04 16:40	0°♂	
minimum elong	3866 Oct 11 17:25	19°♄16'03	0°48'31		3871 Aug 14 17:16	0°♂	
	3866 Oct 28 11:51	0°♄		asc. node	3871 Aug 30 01:32	10°♂41'57	
morning rise	3866 Nov 24 18:38	17°♄37'41			3871 Sep 28 05:06	0°♂	
	3866 Dec 13 16:48	0°♄			3871 Nov 20 02:01	0°♄	
desc. node	3867 Jan 19 02:42	24°♄11'43		retrograde	3872 Jan 16 08:17	16°♄10'59	
	3867 Jan 27 17:32	0°♂		min. Earth dist.	3872 Feb 22 15:30	7°♄23'25	0.65365 AU
	3867 Mar 12 13:37	0°♂		opposition	3872 Feb 25 13:04	6°♄13'40	4°36'48
	3867 Apr 24 09:12	0°♄		greatest brilliancy	3872 Feb 24 21:28	6°♄29'19	-1.3m
	3867 Jun 05 16:47	0°♄			3872 Mar 14 00:54	30°♄	
	3867 Jul 18 23:26	0°♄		direct	3872 Apr 04 22:11	26°♄53'53	
	3867 Sep 06 23:11	0°♂			3872 Apr 28 20:15	0°♄	
retrograde	3867 Oct 24 04:29	13°♂26'24			3872 Jul 09 06:25	0°♄	
min. Earth dist.	3867 Nov 20 02:30	8°♂30'32	0.43262 AU	desc. node	3872 Aug 30 15:08	0°♄	
asc. node	3867 Nov 25 03:25	6°♂50'50			3872 Sep 09 22:54	6°♄20'59	
opposition	3867 Nov 28 05:30	5°♂48'55	0°11'32		3872 Oct 16 18:13	0°♄	
greatest brilliancy	3868 Jan 10 00:24	0°♂22'09	-2.9m		3872 Nov 29 09:53	0°♂	
	3867 Dec 22 03:49	30°♄		evening set	3872 Dec 25 06:06	18°♂42'27	
direct	3867 Dec 29 23:29	29°♄35'31			3873 Jan 09 10:32	0°♂	
	3868 Jan 06 22:23	0°♂		max. Earth dist.	3873 Jan 14 00:15	3°♂26'29	2.40384 AU
	3868 Mar 24 13:09	0°♂			3873 Feb 17 14:59	0°♄	
	3868 May 16 03:21	0°♂					
	3868 Jul 05 01:58	0°♄		conjunction	3873 Feb 22 01:41	3°♄27'54	-1°-4'-58
	3868 Aug 22 20:34	0°♄		minimum elong	3873 Feb 22 01:47	3°♄28'05	1°04'59
evening set	3868 Oct 01 20:49	25°♄12'31			3873 Mar 27 19:48	0°♄	
	3868 Oct 09 08:22	0°♄		morning rise	3873 May 02 03:34	27°♄49'36	
max. Earth dist.	3868 Oct 27 22:04	12°♄00'42	2.62906 AU		3873 May 04 22:11	0°♄	
					3873 Jun 12 19:17	0°♂	
conjunction	3868 Nov 16 10:15	24°♄50'11	0°10'56	asc. node	3873 Jul 17 00:49	25°♂27'22	
minimum elong	3868 Nov 16 10:36	24°♄50'47	0°10'55		3873 Jul 23 07:20	0°♂	
behind sun begin	3868 Nov 15 20:16	24°♄27'02			3873 Sep 04 05:51	0°♂	
behind sun end	3868 Nov 17 00:57	25°♄14'32			3873 Oct 20 18:40	0°♄	
	3868 Nov 24 04:27	0°♄			3873 Dec 13 14:24	0°♄	

retrograde	3874 Feb 18 16:31	19° Ω 51'48			3879 May 24 09:25	0° Θ	
opposition	3874 Mar 30 17:37	10° Ω 16'42	3°39'30	evening set	3879 Jul 02 03:25	26° Θ 38'36	
greatest brilliancy	3874 Mar 30 21:15	10° Ω 13'05	-1.2m		3879 Jul 07 03:04	0° Ω	
min. Earth dist.	3874 Mar 31 17:01	9° Ω 53'26	0.67843 AU				
direct	3874 May 10 20:23	0° Ω 22'12		conjunction	3879 Aug 21 19:31	0° η 07'49	1°07'56
desc. node	3874 Jul 28 21:41	25° Ω 39'09		minimum elong	3879 Aug 21 19:15	0° η 07'24	1°07'57
	3874 Aug 06 04:11	0° \mathcal{M}			3879 Aug 21 14:42	0° η	
	3874 Sep 25 22:15	0° \mathcal{X}		max. Earth dist.	3879 Sep 03 17:40	8° η 29'17	2.64779 AU
	3874 Nov 09 13:47	0° \mathcal{Z}		morning rise	3879 Oct 07 11:54	0° Ω 04'30	
	3874 Dec 20 18:13	0° \approx			3879 Oct 07 09:04	0° Ω	
	3875 Jan 28 19:49	0° \mathcal{H}			3879 Nov 23 22:19	0° \mathcal{M}	
evening set	3875 Feb 27 02:02	23° \mathcal{H} 02'08			3880 Jan 11 02:21	0° \mathcal{X}	
	3875 Mar 07 21:15	0° \mathcal{Y}			3880 Feb 29 10:57	0° \mathcal{Z}	
	3875 Apr 14 22:30	0° \mathcal{B}		desc. node	3880 Mar 19 18:38	11° \mathcal{Z} 19'26	
					3880 Apr 22 12:54	0° \approx	
conjunction	3875 May 07 00:57	17° \mathcal{B} 09'02	0°-18'-46	retrograde	3880 Jul 11 16:06	26° \approx 47'08	
minimum elong	3875 May 07 02:43	17° \mathcal{B} 12'27	0°18'46	opposition	3880 Aug 11 20:17	21° \approx 19'43	-6°-16'-36
	3875 May 23 21:04	0° \mathcal{H}		greatest brilliancy	3880 Aug 13 17:33	20° \approx 46'32	-2.6m
asc. node	3875 Jun 04 00:00	8° \mathcal{H} 21'54		min. Earth dist.	3880 Aug 18 09:12	19° \approx 25'12	0.40476 AU
max. Earth dist.	3875 Jun 27 09:23	25° \mathcal{H} 36'53	2.43410 AU	direct	3880 Sep 14 02:36	15° \approx 00'16	
	3875 Jul 03 10:42	0° Θ			3880 Nov 03 19:53	0° \mathcal{H}	
morning rise	3875 Jul 12 03:02	6° Θ 13'47			3880 Dec 23 04:55	0° \mathcal{Y}	
	3875 Aug 15 03:53	0° Ω		asc. node	3881 Jan 23 21:17	21° \mathcal{Y} 44'38	
	3875 Sep 29 09:43	0° η			3881 Feb 04 16:45	0° \mathcal{B}	
	3875 Nov 16 19:14	0° Ω			3881 Mar 19 15:01	0° \mathcal{H}	
	3876 Jan 10 04:05	0° \mathcal{M}			3881 May 02 11:01	0° Θ	
retrograde	3876 Mar 26 00:31	23° \mathcal{M} 28'31			3881 Jun 16 15:42	0° Ω	
opposition	3876 May 03 17:43	14° \mathcal{M} 38'27	1°34'15		3881 Aug 02 01:55	0° η	
greatest brilliancy	3876 May 04 03:21	14° \mathcal{M} 29'06	-1.4m	evening set	3881 Aug 12 09:58	6° η 36'18	
min. Earth dist.	3876 May 08 11:58	12° \mathcal{M} 47'44	0.63724 AU		3881 Sep 18 04:27	0° Ω	
direct	3876 Jun 14 02:38	4° \mathcal{M} 37'37		max. Earth dist.	3881 Sep 26 07:17	5° Ω 09'27	2.67776 AU
desc. node	3876 Jun 14 21:17	4° \mathcal{M} 37'51					
	3876 Aug 29 06:56	0° \mathcal{X}		conjunction	3881 Sep 27 16:38	6° Ω 02'27	0°58'27
	3876 Oct 17 04:10	0° \mathcal{Z}		minimum elong	3881 Sep 27 17:37	6° Ω 04'00	0°58'27
	3876 Nov 28 14:25	0° \approx			3881 Nov 04 06:48	0° \mathcal{M}	
	3877 Jan 07 02:43	0° \mathcal{H}		morning rise	3881 Nov 10 21:41	4° \mathcal{M} 14'27	
	3877 Feb 14 10:07	0° \mathcal{Y}			3881 Dec 20 19:43	0° \mathcal{X}	
	3877 Mar 24 18:01	0° \mathcal{B}		desc. node	3882 Feb 04 17:44	0° \mathcal{Z} 07'07	
asc. node	3877 Apr 20 21:54	20° \mathcal{B} 50'39			3882 Feb 04 13:26	0° \mathcal{Z}	
	3877 May 03 01:25	0° \mathcal{H}			3882 Mar 21 13:24	0° \approx	
evening set	3877 May 08 09:03	3° \mathcal{H} 58'18			3882 May 05 03:04	0° \mathcal{H}	
	3877 Jun 13 01:00	0° Θ			3882 Jun 19 07:43	0° \mathcal{Y}	
					3882 Aug 08 20:09	0° \mathcal{B}	
conjunction	3877 Jul 07 08:16	17° Θ 07'47	0°45'23	retrograde	3882 Sep 29 12:37	15° \mathcal{B} 23'18	
minimum elong	3877 Jul 07 06:18	17° Θ 04'20	0°45'21	min. Earth dist.	3882 Oct 26 02:46	10° \mathcal{B} 56'15	0.38972 AU
	3877 Jul 26 01:24	0° Ω		opposition	3882 Oct 31 23:38	9° \mathcal{B} 12'41	-2°-45'-24
max. Earth dist.	3877 Aug 07 15:06	8° Ω 29'59	2.56365 AU	greatest brilliancy	3882 Oct 31 06:24	9° \mathcal{B} 25'23	-2.8m
morning rise	3877 Aug 29 15:51	23° Ω 08'22		direct	3882 Nov 30 22:33	3° \mathcal{B} 53'59	
	3877 Sep 09 03:35	0° η		asc. node	3882 Dec 11 20:01	4° \mathcal{B} 40'16	
	3877 Oct 26 04:07	0° Ω			3883 Feb 14 15:41	0° \mathcal{H}	
	3877 Dec 14 06:57	0° \mathcal{M}			3883 Apr 07 08:48	0° Θ	
	3878 Feb 05 04:59	0° \mathcal{X}			3883 May 26 07:36	0° Ω	
	3878 Apr 18 20:17	0° \mathcal{Z}			3883 Jul 13 18:40	0° η	
desc. node	3878 May 02 19:51	2° \mathcal{Z} 05'53			3883 Aug 30 21:01	0° Ω	
retrograde	3878 May 09 11:42	2° \mathcal{Z} 21'49		evening set	3883 Sep 18 15:05	11° Ω 49'06	
	3878 May 28 20:31	30° \mathcal{R} \mathcal{X}			3883 Oct 17 03:29	0° \mathcal{M}	
opposition	3878 Jun 14 09:22	24° \mathcal{X} 48'51	-1°-52'-23	max. Earth dist.	3883 Oct 19 06:37	1° \mathcal{M} 22'15	2.65327 AU
greatest brilliancy	3878 Jun 15 04:26	24° \mathcal{X} 31'35	-1.9m				
min. Earth dist.	3878 Jun 22 07:47	21° \mathcal{X} 56'58	0.53468 AU	conjunction	3883 Nov 02 19:52	10° \mathcal{M} 46'56	0°27'14
direct	3878 Jul 23 18:39	15° \mathcal{X} 37'00		minimum elong	3883 Nov 02 20:41	10° \mathcal{M} 48'15	0°27'14
	3878 Sep 13 04:41	0° \mathcal{Z}			3883 Dec 02 01:45	0° \mathcal{X}	
	3878 Nov 02 12:58	0° \approx		morning rise	3883 Dec 17 17:44	10° \mathcal{X} 28'50	
	3878 Dec 14 11:19	0° \mathcal{H}		desc. node	3883 Dec 23 16:19	14° \mathcal{X} 29'24	
	3879 Jan 23 00:59	0° \mathcal{Y}			3884 Jan 15 09:04	0° \mathcal{Z}	
	3879 Mar 03 08:10	0° \mathcal{B}			3884 Feb 27 01:40	0° \approx	
asc. node	3879 Mar 08 21:33	4° \mathcal{B} 12'13			3884 Apr 08 08:36	0° \mathcal{H}	
	3879 Apr 12 13:15	0° \mathcal{H}			3884 May 18 16:53	0° \mathcal{Y}	

	3884 Jun 27 22:39	0°♄		desc. node	3889 Aug 14 13:03	28°♄59'04	
	3884 Aug 08 16:56	0°♂			3889 Aug 16 07:33	0°♂	
	3884 Sep 25 10:52	0°♂			3889 Oct 04 02:52	0°♂	
asc. node	3884 Oct 28 18:55	14°♂44'57			3889 Nov 17 05:52	0°♂	
retrograde	3884 Nov 23 07:01	19°♂01'13			3889 Dec 28 07:31	0°♂	
min. Earth dist.	3884 Dec 23 10:26	12°♂44'32	0.51518 AU	evening set	3890 Jan 30 18:39	25°♂37'33	
greatest brilliancy	3884 Dec 29 21:15	10°♂19'17	-2.0m		3890 Feb 05 09:18	0°♂	
opposition	3884 Dec 31 04:40	9°♂49'38	3°06'51		3890 Mar 15 11:01	0°♂	
direct	3885 Feb 03 20:18	2°♂15'28					
	3885 Apr 27 18:24	0°♂		conjunction	3890 Apr 07 15:28	18°♂20'04	0°-46'-7
	3885 Jun 21 05:10	0°♂		minimum elong	3890 Apr 07 18:54	18°♂26'51	0°46'06
	3885 Aug 10 16:03	0°♂			3890 Apr 22 11:39	0°♂	
	3885 Sep 27 19:12	0°♂		max. Earth dist.	3890 May 22 15:26	23°♂22'00	2.38257 AU
evening set	3885 Oct 24 21:20	17°♂31'22			3890 May 31 08:24	0°♂	
desc. node	3885 Nov 09 15:15	27°♂56'41		morning rise	3890 Jun 17 08:41	12°♂47'04	
	3885 Nov 12 17:01	0°♂		asc. node	3890 Jun 20 15:27	15°♂13'20	
max. Earth dist.	3885 Nov 13 16:05	0°♂38'40	2.57595 AU		3890 Jul 10 19:44	0°♂	
					3890 Aug 22 12:32	0°♂	
conjunction	3885 Dec 11 02:29	19°♂20'05	0°-17'-46		3890 Oct 07 00:43	0°♂	
minimum elong	3885 Dec 11 01:48	19°♂18'55	0°17'46		3890 Nov 25 14:39	0°♂	
	3885 Dec 26 09:05	0°♂			3891 Jan 25 03:27	0°♂	
morning rise	3886 Jan 29 23:51	24°♂51'05		retrograde	3891 Mar 12 08:20	10°♂19'30	
	3886 Feb 06 00:14	0°♂		opposition	3891 Apr 20 17:38	1°♂08'55	2°30'56
	3886 Mar 18 00:20	0°♂		greatest brilliancy	3891 Apr 21 03:31	0°♂59'14	-1.3m
	3886 Apr 25 23:52	0°♂			3891 Apr 23 15:51	30°♂	
	3886 Jun 03 17:38	0°♂		min. Earth dist.	3891 Apr 24 00:35	29°♂51'26	0.66125 AU
	3886 Jul 13 05:10	0°♂		direct	3891 Jun 01 05:01	21°♂06'31	
	3886 Aug 23 18:38	0°♂		desc. node	3891 Jul 02 11:34	26°♂20'56	
asc. node	3886 Sep 15 18:54	15°♂30'43			3891 Jul 13 02:53	0°♂	
	3886 Oct 08 22:43	0°♂			3891 Sep 10 16:40	0°♂	
	3886 Dec 14 17:17	0°♂			3891 Oct 27 03:57	0°♂	
retrograde	3887 Jan 02 11:58	2°♂12'37			3891 Dec 07 22:03	0°♂	
	3887 Jan 20 05:53	30°♂			3892 Jan 16 04:13	0°♂	
min. Earth dist.	3887 Feb 07 00:28	24°♂00'43	0.62605 AU		3892 Feb 23 07:47	0°♂	
greatest brilliancy	3887 Feb 10 10:44	22°♂38'38	-1.5m		3892 Apr 01 11:41	0°♂	
opposition	3887 Feb 11 10:29	22°♂14'54	4°37'45	evening set	3892 Apr 11 20:01	8°♂02'11	
direct	3887 Mar 21 18:25	13°♂16'32		asc. node	3892 May 07 15:30	27°♂46'49	
	3887 May 22 14:50	0°♂			3892 May 10 14:06	0°♂	
	3887 Jul 19 23:13	0°♂					
	3887 Sep 08 10:48	0°♂		conjunction	3892 Jun 15 14:11	26°♂34'46	0°25'01
desc. node	3887 Sep 27 14:36	12°♂04'43		minimum elong	3892 Jun 15 12:29	26°♂31'43	0°25'00
	3887 Oct 25 00:45	0°♂			3892 Jun 20 08:05	0°♂	
evening set	3887 Dec 06 12:01	29°♂13'41		max. Earth dist.	3892 Jul 25 14:02	24°♂48'09	2.51684 AU
	3887 Dec 07 14:08	0°♂			3892 Aug 02 03:53	0°♂	
max. Earth dist.	3887 Dec 21 01:27	9°♂39'16	2.45489 AU	morning rise	3892 Aug 12 05:53	6°♂50'53	
	3888 Jan 17 17:01	0°♂			3892 Sep 16 04:53	0°♂	
					3892 Nov 02 13:04	0°♂	
conjunction	3888 Jan 29 15:09	8°♂58'33	0°-59'-31		3892 Dec 22 21:35	0°♂	
minimum elong	3888 Jan 29 13:35	8°♂55'35	0°59'31		3893 Feb 18 17:02	0°♂	
	3888 Feb 26 01:13	0°♂		retrograde	3893 Apr 20 16:51	16°♂21'48	
morning rise	3888 Apr 01 14:09	27°♂47'36		desc. node	3893 May 19 10:40	11°♂15'32	
	3888 Apr 04 09:28	0°♂		opposition	3893 May 27 21:49	8°♂13'31	0°-21'-4
greatest brilliancy	3888 Apr 14 23:54	8°♂20'33	1.2m	greatest brilliancy	3893 May 28 01:02	8°♂10'31	-1.7m
	3888 May 12 14:16	0°♂		min. Earth dist.	3893 Jun 03 18:10	5°♂39'32	0.58117 AU
	3888 Jun 20 12:49	0°♂			3893 Jun 22 18:13	30°♂	
	3888 Jul 31 02:56	0°♂		direct	3893 Jul 07 10:27	28°♂32'24	
asc. node	3888 Aug 02 16:53	1°♂51'05			3893 Jul 22 18:19	0°♂	
	3888 Sep 12 09:14	0°♂			3893 Sep 29 09:09	0°♂	
	3888 Oct 30 03:35	0°♂			3893 Nov 13 13:02	0°♂	
	3888 Dec 30 12:22	0°♂			3893 Dec 24 01:38	0°♂	
retrograde	3889 Feb 05 08:48	7°♂12'43			3894 Jan 31 22:29	0°♂	
	3889 Mar 11 02:36	30°♂			3894 Mar 11 17:18	0°♂	
opposition	3889 Mar 17 14:35	27°♂26'00	4°09'54	asc. node	3894 Mar 25 14:41	10°♂36'02	
greatest brilliancy	3889 Mar 17 11:26	27°♂29'08	-1.2m		3894 Apr 20 11:18	0°♂	
min. Earth dist.	3889 Mar 17 01:24	27°♂39'10	0.67672 AU		3894 May 31 21:05	0°♂	
direct	3889 Apr 27 05:03	17°♂42'03		evening set	3894 Jun 12 18:29	8°♂21'49	
	3889 Jun 17 18:52	0°♂			3894 Jul 14 06:01	0°♂	

conjunction	3894 Aug 05 10:02	14°♂50'23	1°03'43	retrograde	3899 Nov 05 07:40	27°♂42'27	
minimum elong	3894 Aug 05 09:01	14°♂48'41	1°03'43	asc. node	3899 Nov 15 11:36	26°♂55'51	
max. Earth dist.	3894 Aug 24 22:31	27°♂40'45	2.62089 AU	min. Earth dist.	3899 Dec 03 05:51	22°♂18'35	0.46178 AU
	3894 Aug 28 11:59	0°♂		opposition	3899 Dec 11 13:25	19°♂23'34	1°30'10
morning rise	3894 Sep 23 02:18	16°♂31'25		greatest brilliancy	3899 Dec 10 19:14	19°♂39'37	-2.3m
	3894 Oct 14 06:23	0°♂		direct	3900 Jan 13 10:00	12°♂38'37	
	3894 Dec 01 05:29	0°♂			3900 Mar 14 23:42	0°♂	
	3895 Jan 19 14:21	0°♂			3900 May 10 14:11	0°♂	
	3895 Mar 13 04:45	0°♂			3900 Jun 30 17:38	0°♂	
desc. node	3895 Apr 06 09:22	12°♂21'46			3900 Aug 19 00:28	0°♂	
	3895 May 22 17:58	0°♂			3900 Oct 05 17:30	0°♂	
retrograde	3895 Jun 14 06:13	2°♂50'47		evening set	3900 Oct 11 01:50	3°♂26'01	
	3895 Jul 05 18:42	30°♂		max. Earth dist.	3900 Nov 03 17:45	18°♂49'21	2.61241 AU
opposition	3895 Jul 17 11:34	26°♂30'55	-4°-41'-13		3900 Nov 20 14:23	0°♂	
greatest brilliancy	3895 Jul 19 08:50	25°♂54'04	-2.3m				
min. Earth dist.	3895 Jul 25 20:59	23°♂47'59	0.45289 AU	conjunction	3900 Nov 26 01:22	3°♂39'28	0°00'42
direct	3895 Aug 22 17:51	18°♂47'57		minimum elong	3900 Nov 26 01:21	3°♂39'28	0°00'42
	3895 Oct 04 22:54	0°♂		behind sun begin	3900 Nov 25 05:58	3°♂06'54	
	3895 Nov 24 23:14	0°♂		behind sun end	3900 Nov 26 20:45	4°♂12'03	
	3896 Jan 06 09:54	0°♂		desc. node	3900 Nov 27 06:41	4°♂28'45	
asc. node	3896 Feb 10 12:53	25°♂44'05			3901 Jan 03 11:21	0°♂	
	3896 Feb 16 08:38	0°♂		morning rise	3901 Jan 12 06:47	6°♂11'30	
	3896 Mar 28 19:02	0°♂			3901 Feb 14 10:45	0°♂	
	3896 May 10 14:24	0°♂			3901 Mar 26 20:36	0°♂	
	3896 Jun 24 01:56	0°♂			3901 May 05 05:38	0°♂	
evening set	3896 Jul 27 21:25	22°♂08'45			3901 Jun 13 08:35	0°♂	
	3896 Aug 09 01:04	0°♂			3901 Jul 23 07:44	0°♂	
					3901 Sep 03 21:49	0°♂	
conjunction	3896 Sep 13 10:32	22°♂40'13	1°05'09	asc. node	3901 Oct 03 10:01	18°♂39'06	
minimum elong	3896 Sep 13 11:11	22°♂41'15	1°05'09		3901 Oct 23 23:35	0°♂	
max. Earth dist.	3896 Sep 17 09:25	25°♂11'24	2.67254 AU	retrograde	3901 Dec 19 21:29	17°♂04'43	
	3896 Sep 24 22:43	0°♂		min. Earth dist.	3902 Jan 22 10:59	9°♂33'28	0.58906 AU
morning rise	3896 Oct 28 05:38	21°♂09'41		greatest brilliancy	3902 Jan 27 01:24	7°♂44'37	-1.6m
	3896 Nov 11 03:14	0°♂		opposition	3902 Jan 28 07:52	7°♂14'32	4°22'09
	3896 Dec 28 03:19	0°♂			3902 Feb 20 11:51	30°♂	
	3897 Feb 12 20:53	0°♂		direct	3902 Mar 06 09:22	28°♂43'15	
desc. node	3897 Feb 21 08:08	5°♂26'38			3902 Mar 21 04:27	0°♂	
	3897 Mar 31 15:49	0°♂			3902 Jun 05 17:17	0°♂	
	3897 May 18 13:29	0°♂			3902 Jul 29 13:43	0°♂	
	3897 Jul 11 14:20	0°♂			3902 Sep 16 21:05	0°♂	
retrograde	3897 Aug 31 03:12	13°♂47'43		desc. node	3902 Oct 15 05:14	18°♂10'03	
min. Earth dist.	3897 Sep 29 08:36	8°♂58'35	0.37082 AU		3902 Nov 02 02:53	0°♂	
opposition	3897 Sep 30 07:48	8°♂43'11	-5°-39'-22	evening set	3902 Nov 19 19:36	11°♂58'39	
greatest brilliancy	3897 Sep 30 06:47	8°♂43'52	-2.9m	max. Earth dist.	3902 Dec 04 23:33	22°♂27'52	2.50650 AU
direct	3897 Oct 29 19:58	3°♂49'26			3902 Dec 15 16:37	0°♂	
asc. node	3897 Dec 28 12:26	22°♂26'26					
	3898 Jan 11 10:41	0°♂		conjunction	3903 Jan 09 09:57	17°♂46'59	0°-45'-52
	3898 Mar 01 20:16	0°♂		minimum elong	3903 Jan 09 08:17	17°♂43'55	0°45'52
	3898 Apr 17 17:42	0°♂			3903 Jan 25 23:41	0°♂	
	3898 Jun 03 16:38	0°♂			3903 Mar 06 13:22	0°♂	
	3898 Jul 21 03:30	0°♂		morning rise	3903 Mar 07 01:57	0°♂24'14	
evening set	3898 Sep 04 09:50	28°♂30'55			3903 Apr 14 02:30	0°♂	
	3898 Sep 06 18:15	0°♂			3903 May 22 10:50	0°♂	
max. Earth dist.	3898 Oct 10 03:31	21°♂11'26	2.66927 AU		3903 Jun 30 12:07	0°♂	
					3903 Aug 10 06:35	0°♂	
conjunction	3898 Oct 19 16:21	27°♂17'24	0°41'25	asc. node	3903 Aug 21 09:54	7°♂52'23	
minimum elong	3898 Oct 19 17:23	27°♂19'04	0°41'25		3903 Sep 23 02:51	0°♂	
	3898 Oct 23 21:41	0°♂			3903 Nov 12 05:20	0°♂	
morning rise	3898 Dec 02 22:14	26°♂00'04		retrograde	3904 Jan 25 01:48	24°♂18'37	
	3898 Dec 08 23:57	0°♂		min. Earth dist.	3904 Mar 03 06:46	15°♂13'35	0.66469 AU
desc. node	3899 Jan 09 07:45	20°♂54'06		opposition	3904 Mar 05 08:33	14°♂23'43	4°30'15
	3899 Jan 22 17:53	0°♂		greatest brilliancy	3904 Mar 04 21:30	14°♂34'47	-1.3m
	3899 Mar 07 02:48	0°♂		direct	3904 Apr 14 05:53	4°♂54'09	
	3899 Apr 18 06:51	0°♂			3904 Jul 02 23:11	0°♂	
	3899 May 29 16:45	0°♂			3904 Aug 26 03:51	0°♂	
	3899 Jul 10 10:22	0°♂		desc. node	3904 Sep 01 03:42	3°♂36'44	
	3899 Aug 24 09:44	0°♂			3904 Oct 12 19:40	0°♂	

	3904 Nov 25 15:27	0°☾			3909 Jul 22 07:59	0°♂	
	3905 Jan 05 16:43	0°≈		max. Earth dist.	3909 Aug 15 09:33	16°♂10'03	2.58618 AU
evening set	3905 Jan 07 14:04	1°≈25'13			3909 Sep 05 10:13	0°♍	
max. Earth dist.	3905 Feb 08 19:15	26°≈04'17	2.37977 AU	morning rise	3909 Sep 08 20:57	2°♍14'37	
	3905 Feb 13 20:28	0°✕			3909 Oct 22 07:11	0°♎	
					3909 Dec 09 21:11	0°♏	
conjunction	3905 Mar 10 09:23	19°✕14'52	-1°-2'-25		3910 Jan 30 02:42	0°♐	
minimum elong	3905 Mar 10 11:01	19°✕18'06	1°02'25		3910 Mar 30 18:31	0°☾	
	3905 Mar 24 00:09	0°♑		desc. node	3910 Apr 24 00:25	8°☾35'53	
	3905 May 01 01:38	0°♒		retrograde	3910 May 22 09:34	12°☾55'04	
morning rise	3905 May 20 12:12	15°♒07'45		opposition	3910 Jun 26 11:08	5°☾45'41	-2°-51'-38
	3905 Jun 08 22:02	0°♓		greatest brilliancy	3910 Jun 27 16:38	5°☾19'44	-2.0m
asc. node	3905 Jul 08 09:17	22°♓00'23		min. Earth dist.	3910 Jul 04 19:52	2°☾50'09	0.50604 AU
	3905 Jul 19 08:37	0°♈			3910 Jul 13 22:28	30°♈♐	
	3905 Aug 31 03:11	0°♉		direct	3910 Aug 03 22:47	26°♐59'09	
	3905 Oct 16 03:01	0°♊			3910 Aug 25 15:21	0°☾	
	3905 Dec 06 18:17	0°♋			3910 Oct 26 05:23	0°≈	
retrograde	3906 Feb 27 10:50	27°♋34'47			3910 Dec 08 18:58	0°✕	
opposition	3906 Apr 08 07:24	18°♋07'22	3°17'01		3911 Jan 18 01:11	0°♑	
greatest brilliancy	3906 Apr 08 13:54	18°♋00'56	-1.2m		3911 Feb 26 18:35	0°♒	
min. Earth dist.	3906 Apr 10 02:24	17°♋24'47	0.67512 AU	asc. node	3911 Feb 28 06:13	1°♒06'48	
direct	3906 May 19 14:51	8°♋08'51			3911 Apr 08 07:37	0°♓	
desc. node	3906 Jul 20 02:36	25°♋02'32			3911 May 20 09:55	0°♈	
	3906 Jul 30 10:35	0°♌			3911 Jul 03 08:21	0°♉	
	3906 Sep 21 05:49	0°♍		evening set	3911 Jul 13 05:58	6°♉36'00	
	3906 Nov 05 10:43	0°☾			3911 Aug 17 22:45	0°♊	
	3906 Dec 16 19:39	0°≈					
	3907 Jan 24 22:44	0°✕		conjunction	3911 Aug 31 14:48	8°♊49'33	1°08'08
	3907 Mar 04 00:29	0°♑		minimum elong	3911 Aug 31 14:55	8°♊49'45	1°08'08
evening set	3907 Mar 16 06:38	9°♑41'42		max. Earth dist.	3911 Sep 10 04:51	14°♊59'01	2.65892 AU
greatest brilliancy	3907 Apr 01 09:06	22°♑23'31	1.2m		3911 Oct 03 17:27	0°♋	
	3907 Apr 11 02:03	0°♒		morning rise	3911 Oct 16 11:27	8°♋05'53	
	3907 May 20 01:13	0°♓			3911 Nov 20 02:38	0°♌	
					3912 Jan 06 18:44	0°♍	
conjunction	3907 May 23 14:35	2°♓41'05	0°-1'-50		3912 Feb 23 23:20	0°☾	
minimum elong	3907 May 23 14:45	2°♓41'23	0°01'52	desc. node	3912 Mar 10 23:51	9°☾48'35	
behind sun begin	3907 May 22 11:00	1°♓49'07			3912 Apr 13 20:56	0°≈	
behind sun end	3907 May 24 18:30	3°♓33'36			3912 Jun 10 00:33	0°✕	
asc. node	3907 May 26 07:23	4°♓42'57		retrograde	3912 Jul 30 09:30	12°✕53'18	
	3907 Jun 29 15:22	0°♈		opposition	3912 Aug 29 19:12	7°✕48'38	-6°-40'-45
max. Earth dist.	3907 Jul 10 23:23	8°♈07'06	2.46456 AU	greatest brilliancy	3912 Aug 31 04:20	7°✕25'47	-2.8m
morning rise	3907 Jul 25 13:32	18°♈24'08		min. Earth dist.	3912 Sep 03 04:18	6°✕36'29	0.38461 AU
	3907 Aug 11 08:19	0°♉		direct	3912 Sep 30 05:02	2°✕14'20	
	3907 Sep 25 10:37	0°♊			3912 Dec 13 07:45	0°♑	
	3907 Nov 12 07:41	0°♋		asc. node	3913 Jan 15 03:55	20°♑49'12	
	3908 Jan 03 16:46	0°♌			3913 Jan 28 22:50	0°♒	
	3908 Mar 17 20:36	0°♍			3913 Mar 14 06:12	0°♓	
retrograde	3908 Apr 04 22:31	1°♍49'25			3913 Apr 27 21:13	0°♈	
	3908 Apr 21 20:42	30°♌♍			3913 Jun 12 13:53	0°♉	
opposition	3908 May 13 04:17	23°♌12'37	0°55'33		3913 Jul 29 07:15	0°♊	
greatest brilliancy	3908 May 13 11:15	23°♌05'56	-1.5m	evening set	3913 Aug 21 22:24	15°♊01'01	
min. Earth dist.	3908 May 18 16:52	21°♌05'25	0.61986 AU		3913 Sep 14 13:26	0°♋	
desc. node	3908 Jun 06 01:20	15°♌15'12		max. Earth dist.	3913 Oct 02 10:17	11°♋20'49	2.67714 AU
direct	3908 Jun 23 08:30	13°♌16'08					
	3908 Aug 21 01:44	0°♌		conjunction	3913 Oct 06 17:07	14°♋04'20	0°53'01
	3908 Oct 11 20:58	0°☾		minimum elong	3913 Oct 06 18:10	14°♋06'01	0°53'01
	3908 Nov 24 00:50	0°≈			3913 Oct 31 15:46	0°♌	
	3909 Jan 02 20:19	0°✕		morning rise	3913 Nov 19 19:03	12°♌18'41	
	3909 Feb 10 07:28	0°♑			3913 Dec 17 00:29	0°♍	
	3909 Mar 20 18:06	0°♒		desc. node	3914 Jan 26 22:40	27°♍02'19	
asc. node	3909 Apr 12 06:55	17°♒17'00			3914 Jan 31 08:59	0°☾	
	3909 Apr 29 04:01	0°♓			3914 Mar 16 16:51	0°≈	
evening set	3909 May 22 23:28	17°♓33'37			3914 Apr 29 05:06	0°✕	
	3909 Jun 09 05:47	0°♈			3914 Jun 11 12:35	0°♑	
					3914 Jul 26 17:44	0°♒	
conjunction	3909 Jul 19 11:10	28°♈02'52	0°53'55		3914 Sep 27 05:31	0°♓	
minimum elong	3909 Jul 19 09:26	27°♈59'55	0°53'54	retrograde	3914 Oct 15 01:14	2°♓12'02	

	3914 Nov 01 16:23	30° \mathbb{R}			3919 Oct 21 05:21	0° \mathbb{J}	
min. Earth dist.	3914 Nov 10 11:19	27° \mathbb{B} 33'43	0.41125 AU		3919 Dec 03 21:33	0° \mathbb{B}	
opposition	3914 Nov 17 22:31	25° \mathbb{B} 12'52	0°-59'-43	evening set	3919 Dec 18 09:26	10° \mathbb{B} 23'31	
greatest brilliancy	3914 Nov 17 13:09	25° \mathbb{B} 20'16	-2.7m	max. Earth dist.	3920 Jan 03 12:22	22° \mathbb{B} 11'21	2.42630 AU
asc. node	3914 Dec 03 03:45	21° \mathbb{B} 03'15			3920 Jan 14 00:16	0° \approx	
direct	3914 Dec 18 19:12	19° \mathbb{B} 25'19					
	3915 Feb 01 04:24	0° \mathbb{II}		conjunction	3920 Feb 12 23:06	22° \approx 46'36	-1°-3'-58
	3915 Mar 31 16:50	0° \mathbb{B}		minimum elong	3920 Feb 12 22:16	22° \approx 44'58	1°03'59
	3915 May 21 10:07	0° \mathbb{Q}			3920 Feb 22 07:10	0° \mathbb{H}	
	3915 Jul 09 15:31	0° \mathbb{P}			3920 Mar 31 13:39	0° \mathbb{Y}	
	3915 Aug 27 02:51	0° \mathbb{L}		morning rise	3920 Apr 19 12:42	14° \mathbb{Y} 56'53	
evening set	3915 Sep 27 18:22	19° \mathbb{L} 55'46			3920 May 08 16:39	0° \mathbb{B}	
	3915 Oct 13 12:51	0° \mathbb{M}			3920 Jun 16 13:32	0° \mathbb{II}	
max. Earth dist.	3915 Oct 25 17:49	7° \mathbb{M} 52'21	2.64094 AU	asc. node	3920 Jul 25 00:58	28° \mathbb{II} 33'18	
					3920 Jul 27 00:56	0° \mathbb{B}	
conjunction	3915 Nov 12 02:24	19° \mathbb{M} 11'30	0°17'58		3920 Sep 08 00:30	0° \mathbb{Q}	
minimum elong	3915 Nov 12 02:58	19° \mathbb{M} 12'26	0°17'58		3920 Oct 24 21:18	0° \mathbb{P}	
	3915 Nov 28 10:37	0° \mathbb{J}			3920 Dec 19 16:10	0° \mathbb{L}	
desc. node	3915 Dec 14 21:25	11° \mathbb{J} 02'04		retrograde	3921 Feb 13 23:52	14° \mathbb{L} 57'40	
morning rise	3915 Dec 27 14:56	19° \mathbb{J} 41'22		opposition	3921 Mar 26 03:46	5° \mathbb{L} 16'49	3°53'15
	3916 Jan 11 14:20	0° \mathbb{B}		greatest brilliancy	3921 Mar 26 04:31	5° \mathbb{L} 16'04	-1.2m
	3916 Feb 23 00:31	0° \approx		min. Earth dist.	3921 Mar 26 10:33	5° \mathbb{L} 10'04	0.67892 AU
	3916 Apr 03 23:27	0° \mathbb{H}			3921 Apr 09 06:33	30° \mathbb{R} \mathbb{P}	
	3916 May 13 22:15	0° \mathbb{Y}		direct	3921 May 06 01:59	25° \mathbb{P} 26'41	
	3916 Jun 22 16:02	0° \mathbb{B}			3921 Jun 04 12:03	0° \mathbb{L}	
	3916 Aug 02 12:52	0° \mathbb{II}		desc. node	3921 Aug 05 17:18	27° \mathbb{L} 10'31	
	3916 Sep 16 08:55	0° \mathbb{B}			3921 Aug 10 21:10	0° \mathbb{M}	
asc. node	3916 Oct 20 04:06	18° \mathbb{B} 23'36			3921 Sep 29 19:13	0° \mathbb{J}	
	3916 Nov 29 19:54	0° \mathbb{Q}			3921 Nov 13 06:47	0° \mathbb{B}	
retrograde	3916 Dec 04 00:50	0° \mathbb{Q} 07'37			3921 Dec 24 11:08	0° \approx	
	3916 Dec 08 04:32	30° \mathbb{R} \mathbb{B}			3922 Feb 01 13:41	0° \mathbb{H}	
min. Earth dist.	3917 Jan 04 10:22	23° \mathbb{B} 23'06	0.54313 AU	evening set	3922 Feb 15 20:08	11° \mathbb{H} 11'30	
greatest brilliancy	3917 Jan 10 05:13	21° \mathbb{B} 09'43	-1.9m		3922 Mar 11 15:27	0° \mathbb{Y}	
opposition	3917 Jan 11 14:34	20° \mathbb{B} 37'34	3°43'30		3922 Apr 18 16:04	0° \mathbb{B}	
direct	3917 Feb 16 03:41	12° \mathbb{B} 40'53					
	3917 Apr 19 04:58	0° \mathbb{Q}		conjunction	3922 Apr 25 08:58	5° \mathbb{B} 14'19	0°-31'-23
	3917 Jun 16 02:23	0° \mathbb{P}		minimum elong	3922 Apr 25 11:50	5° \mathbb{B} 19'54	0°31'22
	3917 Aug 06 12:49	0° \mathbb{L}			3922 May 27 13:02	0° \mathbb{II}	
	3917 Sep 24 01:15	0° \mathbb{M}		asc. node	3922 Jun 12 00:41	11° \mathbb{II} 38'51	
desc. node	3917 Oct 31 20:04	24° \mathbb{M} 30'18		max. Earth dist.	3922 Jun 15 22:13	14° \mathbb{II} 32'48	2.40977 AU
evening set	3917 Nov 03 15:42	26° \mathbb{M} 22'36		morning rise	3922 Jul 02 19:46	26° \mathbb{II} 57'43	
	3917 Nov 09 02:02	0° \mathbb{J}			3922 Jul 07 00:17	0° \mathbb{B}	
max. Earth dist.	3917 Nov 21 11:08	8° \mathbb{J} 20'49	2.55295 AU		3922 Aug 18 15:33	0° \mathbb{Q}	
					3922 Oct 02 21:54	0° \mathbb{P}	
conjunction	3917 Dec 21 19:57	29° \mathbb{J} 21'41	0°-28'-27		3922 Nov 20 15:50	0° \mathbb{L}	
minimum elong	3917 Dec 21 18:50	29° \mathbb{J} 19'44	0°28'27		3923 Jan 15 18:53	0° \mathbb{M}	
	3917 Dec 22 17:41	0° \mathbb{B}		retrograde	3923 Mar 21 15:00	18° \mathbb{M} 15'13	
	3918 Feb 02 06:03	0° \approx		opposition	3923 Apr 29 15:53	9° \mathbb{M} 15'18	1°59'08
morning rise	3918 Feb 11 17:07	7° \approx 01'31		greatest brilliancy	3923 Apr 30 02:01	9° \mathbb{M} 05'25	-1.3m
	3918 Mar 14 02:23	0° \mathbb{H}		min. Earth dist.	3923 May 03 18:15	7° \mathbb{M} 39'25	0.64919 AU
	3918 Apr 21 21:52	0° \mathbb{Y}			3923 May 30 03:16	30° \mathbb{R} \mathbb{L}	
	3918 May 30 11:31	0° \mathbb{B}		direct	3923 Jun 10 02:44	29° \mathbb{L} 13'03	
	3918 Jul 08 18:09	0° \mathbb{II}			3923 Jun 21 13:43	0° \mathbb{M}	
	3918 Aug 18 21:54	0° \mathbb{B}		desc. node	3923 Jun 23 16:55	0° \mathbb{M} 18'29	
asc. node	3918 Sep 07 02:25	13° \mathbb{B} 13'57			3923 Sep 04 17:13	0° \mathbb{J}	
	3918 Oct 02 21:08	0° \mathbb{Q}			3923 Oct 22 12:12	0° \mathbb{B}	
	3918 Nov 27 14:49	0° \mathbb{P}			3923 Dec 03 15:58	0° \approx	
retrograde	3919 Jan 11 11:55	10° \mathbb{P} 47'15			3924 Jan 12 02:07	0° \mathbb{H}	
min. Earth dist.	3919 Feb 17 00:40	2° \mathbb{P} 15'20	0.64252 AU		3924 Feb 19 07:46	0° \mathbb{Y}	
opposition	3919 Feb 20 15:02	0° \mathbb{P} 48'56	4°39'05		3924 Mar 28 13:17	0° \mathbb{B}	
greatest brilliancy	3919 Feb 19 19:39	1° \mathbb{P} 08'19	-1.4m	evening set	3924 Apr 28 04:39	23° \mathbb{B} 33'15	
	3919 Feb 22 16:12	30° \mathbb{R} \mathbb{Q}		asc. node	3924 Apr 28 22:46	24° \mathbb{B} 07'34	
direct	3919 Mar 31 14:01	21° \mathbb{Q} 38'13			3924 May 06 17:35	0° \mathbb{II}	
	3919 May 11 19:49	0° \mathbb{P}			3924 Jun 16 13:24	0° \mathbb{B}	
	3919 Jul 14 17:25	0° \mathbb{L}					
	3919 Sep 04 06:43	0° \mathbb{M}		conjunction	3924 Jun 29 07:04	9° \mathbb{B} 04'11	0°37'34
desc. node	3919 Sep 18 18:40	9° \mathbb{M} 00'48		minimum elong	3924 Jun 29 05:03	9° \mathbb{B} 00'38	0°37'33

	3924 Jul 29 10:21	0°♈		greatest brilliancy	3929 Oct 18 22:16	26°♊50'54	-2.9m
max. Earth dist.	3924 Aug 03 10:15	3°♈24'01	2.54368 AU	direct	3929 Nov 18 01:37	21°♊39'29	
morning rise	3924 Aug 23 09:20	16°♈48'32		asc. node	3929 Dec 19 20:41	27°♊41'09	
	3924 Sep 12 10:31	0°♎			3929 Dec 26 02:20	0°♋	
	3924 Oct 29 12:47	0°♊			3930 Feb 22 04:55	0°♈	
	3924 Dec 18 01:25	0°♌			3930 Apr 12 07:06	0°♉	
	3925 Feb 10 12:15	0°♈			3930 May 30 05:30	0°♈	
retrograde	3925 May 02 00:44	25°♈42'32			3930 Jul 17 04:32	0°♎	
desc. node	3925 May 10 15:40	25°♈14'28			3930 Sep 03 01:31	0°♊	
opposition	3925 Jun 07 13:54	17°♈52'38	-1°-11'-48	evening set	3930 Sep 13 13:58	6°♊38'02	
greatest brilliancy	3925 Jun 08 01:34	17°♈41'53	-1.8m	max. Earth dist.	3930 Oct 16 11:04	27°♊32'41	2.66146 AU
min. Earth dist.	3925 Jun 15 01:56	15°♈07'09	0.55643 AU		3930 Oct 20 06:55	0°♌	
direct	3925 Jul 17 13:13	8°♈25'37					
	3925 Sep 21 09:43	0°♊		conjunction	3930 Oct 28 18:03	5°♌26'58	0°33'25
	3925 Nov 07 22:59	0°♋		minimum elong	3930 Oct 28 18:59	5°♌28'27	0°33'25
	3925 Dec 19 04:57	0°♈			3930 Dec 05 07:37	0°♈	
	3926 Jan 27 10:16	0°♊		morning rise	3930 Dec 12 06:57	4°♈37'45	
	3926 Mar 07 10:40	0°♋		desc. node	3930 Dec 31 12:12	17°♈31'00	
asc. node	3926 Mar 16 21:57	7°♋11'57			3931 Jan 18 20:24	0°♊	
	3926 Apr 16 09:28	0°♈			3931 Mar 02 20:35	0°♋	
	3926 May 27 23:27	0°♉			3931 Apr 13 12:49	0°♈	
evening set	3926 Jun 25 01:45	19°♉31'18			3931 May 24 07:21	0°♊	
	3926 Jul 10 11:49	0°♈			3931 Jul 04 01:36	0°♋	
					3931 Aug 15 18:46	0°♈	
conjunction	3926 Aug 15 23:00	24°♈12'54	1°06'48		3931 Oct 06 13:34	0°♉	
minimum elong	3926 Aug 15 22:26	24°♈11'58	1°06'47	asc. node	3931 Nov 06 19:29	9°♉53'34	
	3926 Aug 24 19:44	0°♎		retrograde	3931 Nov 17 10:01	10°♉41'49	
max. Earth dist.	3926 Aug 31 17:34	4°♎29'07	2.63688 AU	min. Earth dist.	3931 Dec 16 13:31	4°♉48'38	0.49143 AU
morning rise	3926 Oct 02 10:25	24°♎50'17		greatest brilliancy	3931 Dec 23 12:16	2°♉16'00	-2.2m
	3926 Oct 10 13:18	0°♊		opposition	3931 Dec 24 16:11	1°♉50'18	2°31'48
	3926 Nov 27 05:56	0°♌			3931 Dec 29 19:38	30°♌♈	
	3927 Jan 14 20:48	0°♈		direct	3932 Jan 27 12:25	24°♈36'59	
	3927 Mar 06 08:50	0°♊			3932 Feb 27 14:00	0°♉	
desc. node	3927 Mar 28 14:08	12°♊26'23			3932 May 03 07:11	0°♈	
	3927 May 02 08:32	0°♋			3932 Jun 25 03:08	0°♎	
retrograde	3927 Jun 30 16:47	16°♋14'06			3932 Aug 14 01:29	0°♊	
opposition	3927 Aug 01 17:32	10°♋23'46	-5°-39'-49		3932 Oct 01 00:46	0°♌	
greatest brilliancy	3927 Aug 03 18:02	9°♋46'21	-2.5m	evening set	3932 Oct 19 11:32	11°♌53'07	
min. Earth dist.	3927 Aug 09 09:08	8°♋02'53	0.42504 AU	max. Earth dist.	3932 Nov 09 21:58	25°♌58'06	2.59318 AU
direct	3927 Sep 05 10:26	3°♋25'19			3932 Nov 15 23:07	0°♈	
	3927 Nov 15 15:13	0°♈		desc. node	3932 Nov 17 10:49	0°♈59'44	
	3927 Dec 30 19:54	0°♊					
asc. node	3928 Feb 01 21:41	23°♊31'28		conjunction	3932 Dec 05 01:31	12°♈54'08	0°-9'-57
	3928 Feb 10 22:22	0°♋		minimum elong	3932 Dec 05 01:08	12°♈53'29	0°09'58
	3928 Mar 24 01:23	0°♈		behind sun begin	3932 Dec 04 09:11	12°♈26'18	
	3928 May 06 08:07	0°♉		behind sun end	3932 Dec 05 17:05	13°♈20'42	
	3928 Jun 20 03:29	0°♈			3932 Dec 29 18:30	0°♊	
	3928 Aug 05 07:39	0°♎		morning rise	3933 Jan 22 14:59	16°♊56'59	
evening set	3928 Aug 06 21:34	1°♎00'53			3933 Feb 09 14:12	0°♋	
	3928 Sep 21 07:36	0°♊			3933 Mar 21 19:17	0°♈	
					3933 Apr 29 23:16	0°♊	
conjunction	3928 Sep 22 16:09	0°♊51'46	1°01'38		3933 Jun 07 20:33	0°♋	
minimum elong	3928 Sep 22 17:01	0°♊53'07	1°01'38		3933 Jul 17 11:46	0°♈	
max. Earth dist.	3928 Sep 23 15:19	1°♊28'35	2.67656 AU		3933 Aug 28 08:13	0°♉	
morning rise	3928 Nov 06 01:53	29°♊07'33		asc. node	3933 Sep 23 19:25	17°♉28'45	
	3928 Nov 07 10:46	0°♌			3933 Oct 14 14:04	0°♈	
	3928 Dec 24 04:36	0°♈		retrograde	3933 Dec 28 08:27	26°♈21'28	
	3929 Feb 08 08:24	0°♊		min. Earth dist.	3934 Feb 01 00:27	18°♈27'30	0.61061 AU
desc. node	3929 Feb 12 13:19	2°♊45'02		greatest brilliancy	3934 Feb 04 23:43	16°♈52'55	-1.5m
	3929 Mar 26 01:09	0°♋		opposition	3934 Feb 06 02:52	16°♈25'57	4°33'46
	3929 May 10 19:16	0°♈		direct	3934 Mar 15 22:23	7°♈38'59	
	3929 Jun 27 09:08	0°♊			3934 May 28 17:55	0°♎	
	3929 Aug 30 20:07	0°♋			3934 Jul 23 22:10	0°♊	
retrograde	3929 Sep 18 05:20	2°♋15'34			3934 Sep 11 22:01	0°♌	
	3929 Oct 06 21:55	30°♌♊		desc. node	3934 Oct 05 09:59	14°♌55'01	
min. Earth dist.	3929 Oct 15 13:48	27°♊46'59	0.37740 AU		3934 Oct 28 09:35	0°♈	
opposition	3929 Oct 19 12:53	26°♊40'42	-4°-7'-46	evening set	3934 Nov 29 15:55	22°♈00'59	

	3934 Dec 11 00:27	0°☾		behind sun end	3939 Jun 07 14:37	17°♊25'35	
max. Earth dist.	3934 Dec 14 01:49	2°☾10'12	2.47826 AU		3939 Jun 24 20:52	0°☾	
conjunction	3935 Jan 21 01:54	29°☾52'06	0°-54'-25	max. Earth dist.	3939 Jul 21 02:50	18°☾37'28	2.49396 AU
minimum elong	3935 Jan 21 00:10	29°☾48'52	0°54'25	morning rise	3939 Aug 06 01:46	29°☾39'32	
	3935 Jan 21 06:08	0°≈			3939 Aug 06 13:43	0°♏	
	3935 Mar 01 17:26	0°♋			3939 Sep 20 13:40	0°♍	
morning rise	3935 Mar 22 02:38	15°♋50'49			3939 Nov 07 01:13	0°♌	
	3935 Apr 09 04:07	0°♍			3939 Dec 28 01:24	0°♍	
	3935 May 17 10:09	0°♋		retrograde	3940 Feb 27 10:43	0°♌	
greatest brilliancy	3935 Jun 05 04:41	14°♋34'00	1.2m	opposition	3940 Apr 14 06:04	10°♌26'24	
	3935 Jun 25 09:05	0°♊			3940 May 21 23:23	2°♌04'27	0°12'47
	3935 Aug 04 23:36	0°☾		greatest brilliancy	3940 May 19 14:32	2°♌57'59	-1.6m
asc. node	3935 Aug 11 17:35	4°☾49'22		desc. node	3940 May 27 06:21	0°♌03'54	
	3935 Sep 17 08:57	0°♏			3940 May 27 10:31	30°♌	
	3935 Nov 04 19:18	0°♍		min. Earth dist.	3940 May 28 05:59	29°♌41'44	0.59963 AU
	3936 Jan 13 07:18	0°♌		direct	3940 Jul 01 20:20	22°♌15'11	
retrograde	3936 Feb 01 16:49	2°♌13'18			3940 Aug 08 08:00	0°♌	
	3936 Feb 19 22:04	30°♌			3940 Oct 04 23:20	0°☾	
opposition	3936 Mar 12 23:56	22°♌22'22	4°19'38		3940 Nov 18 04:42	0°≈	
min. Earth dist.	3936 Mar 11 18:01	22°♌52'17	0.67265 AU		3940 Dec 28 09:41	0°♋	
greatest brilliancy	3936 Mar 12 17:21	22°♌28'58	-1.2m		3941 Feb 05 02:03	0°♍	
direct	3936 Apr 22 07:55	12°♌44'26		asc. node	3941 Mar 15 16:26	0°♋	
	3936 Jun 24 11:41	0°♌			3941 Apr 02 15:32	13°♋45'03	
	3936 Aug 20 10:24	0°♌		evening set	3941 Apr 24 05:42	0°♊	
desc. node	3936 Aug 22 08:58	1°♌08'12			3941 Jun 04 15:46	0°☾09'12	
	3936 Oct 07 18:53	0°♌			3941 Jun 04 10:35	0°☾	
	3936 Nov 20 20:15	0°☾			3941 Jul 17 14:59	0°♏	
	3936 Dec 31 22:45	0°≈		conjunction	3941 Jul 29 22:07	8°♏17'49	1°00'19
evening set	3937 Jan 20 19:50	15°≈05'37		minimum elong	3941 Jul 29 20:47	8°♏15'34	1°00'18
	3937 Feb 09 02:01	0°♋		max. Earth dist.	3941 Aug 21 17:24	23°♏26'13	2.60629 AU
	3937 Mar 19 04:42	0°♍			3941 Aug 31 17:59	0°♍	
conjunction	3937 Mar 26 15:33	5°♍53'52	0°-54'-57	morning rise	3941 Sep 17 17:09	10°♍59'40	
minimum elong	3937 Mar 26 18:33	5°♍59'49	0°54'56		3941 Oct 17 12:16	0°♌	
max. Earth dist.	3937 Apr 08 02:15	15°♍44'15	2.36898 AU		3941 Dec 04 16:21	0°♌	
	3937 Apr 26 05:12	0°♋			3942 Jan 23 17:12	0°♌	
	3937 Jun 04 00:52	0°♊		desc. node	3942 Mar 19 11:15	0°☾	
morning rise	3937 Jun 06 06:01	1°♊40'49			3942 Apr 14 05:05	11°☾50'51	
asc. node	3937 Jun 28 15:55	18°♊27'32		retrograde	3942 Jun 04 08:15	24°☾14'17	
	3937 Jul 14 10:35	0°☾		opposition	3942 Jul 08 10:30	17°☾31'17	-3°-53'-35
	3937 Aug 26 02:17	0°♏		greatest brilliancy	3942 Jul 10 02:03	16°☾57'51	-2.2m
	3937 Oct 10 16:58	0°♍		min. Earth dist.	3942 Jul 16 23:55	14°☾38'36	0.47668 AU
	3937 Nov 29 21:40	0°♌		direct	3942 Aug 14 20:04	9°☾16'41	
	3938 Feb 03 13:31	0°♌			3942 Oct 15 19:54	0°≈	
retrograde	3938 Mar 07 08:08	5°♌19'24			3942 Dec 01 09:20	0°♋	
	3938 Apr 05 09:15	30°♌		asc. node	3943 Jan 11 16:11	0°♍	
opposition	3938 Apr 15 23:15	26°♌00'42	2°51'09		3943 Feb 18 13:39	28°♍12'46	
greatest brilliancy	3938 Apr 16 07:51	25°♌52'13	-1.3m		3943 Feb 20 23:26	0°♋	
min. Earth dist.	3938 Apr 18 13:50	24°♌59'03	0.66878 AU		3943 Apr 02 22:15	0°♊	
direct	3938 May 27 09:56	15°♌59'37			3943 May 15 08:19	0°☾	
desc. node	3938 Jul 10 07:30	25°♌33'13			3943 Jun 28 12:26	0°♏	
	3938 Jul 21 02:22	0°♌		evening set	3943 Jul 22 21:40	16°♏05'55	
	3938 Sep 15 05:18	0°♌			3943 Aug 13 06:38	0°♍	
	3938 Oct 31 04:18	0°☾		conjunction	3943 Sep 09 04:26	17°♍17'55	1°06'52
	3938 Dec 11 19:25	0°≈		minimum elong	3943 Sep 09 04:53	17°♍18'38	1°06'51
	3939 Jan 20 00:53	0°♋		max. Earth dist.	3943 Sep 15 13:04	21°♍21'49	2.66749 AU
greatest brilliancy	3939 Feb 05 15:36	13°♋01'13	1.2m		3943 Sep 29 02:16	0°♌	
	3939 Feb 27 03:46	0°♍		morning rise	3943 Oct 24 09:29	16°♌04'31	
evening set	3939 Apr 01 11:23	26°♍15'46			3943 Nov 15 08:21	0°♌	
	3939 Apr 06 06:01	0°♋			3944 Jan 01 15:02	0°♌	
	3939 May 15 05:57	0°♊			3944 Feb 17 22:22	0°☾	
asc. node	3939 May 16 16:09	1°♊04'33		desc. node	3944 Mar 01 03:52	7°☾43'04	
					3944 Apr 05 20:16	0°≈	
conjunction	3939 Jun 07 03:27	17°♊05'01	0°14'12		3944 May 26 08:37	0°♋	
minimum elong	3939 Jun 07 02:20	17°♊02'58	0°14'11		3944 Aug 10 19:42	0°♍	
behind sun begin	3939 Jun 06 14:03	16°♊40'21		retrograde	3944 Aug 17 22:11	0°♍19'05	

	3944 Aug 24 22:59	30° \mathbb{R}			3949 Sep 19 05:22	0° \mathbb{M}	
opposition	3944 Sep 16 20:14	25° \mathbb{H} 23'00	-6°-23'-59	desc. node	3949 Oct 22 00:53	21° \mathbb{M} 07'39	
greatest brilliancy	3944 Sep 17 11:07	25° \mathbb{H} 13'10	-2.9m		3949 Nov 04 10:14	0° \mathbb{J}	
min. Earth dist.	3944 Sep 18 10:46	24° \mathbb{H} 57'34	0.37302 AU	evening set	3949 Nov 12 16:41	5° \mathbb{J} 33'20	
direct	3944 Oct 16 20:57	20° \mathbb{H} 19'38		max. Earth dist.	3949 Nov 28 21:28	16° \mathbb{J} 36'26	2.52811 AU
	3944 Nov 26 07:42	0° \mathbb{Y}			3949 Dec 18 02:05	0° \mathbb{Z}	
asc. node	3945 Jan 05 12:53	21° \mathbb{Y} 14'05					
	3945 Jan 19 21:00	0° \mathbb{B}		conjunction	3950 Jan 01 01:55	9° \mathbb{Z} 58'02	0°-38'-44
	3945 Mar 07 09:17	0° \mathbb{H}		minimum elong	3950 Jan 01 00:26	9° \mathbb{Z} 55'22	0°38'44
	3945 Apr 22 02:10	0° \mathbb{S}			3950 Jan 28 12:36	0° \approx	
	3945 Jun 07 09:23	0° \mathbb{Q}		morning rise	3950 Feb 24 09:52	20° \approx 11'32	
	3945 Jul 24 11:26	0° \mathbb{P}			3950 Mar 09 05:51	0° \mathbb{H}	
evening set	3945 Aug 30 06:26	23° \mathbb{P} 15'53			3950 Apr 16 22:03	0° \mathbb{Y}	
	3945 Sep 09 22:02	0° \mathbb{A}			3950 May 25 08:17	0° \mathbb{B}	
max. Earth dist.	3945 Oct 07 13:48	17° \mathbb{A} 33'18	2.67380 AU		3950 Jul 03 10:41	0° \mathbb{H}	
					3950 Aug 13 07:09	0° \mathbb{S}	
conjunction	3945 Oct 14 17:03	22° \mathbb{A} 06'20	0°46'34	asc. node	3950 Aug 28 10:12	10° \mathbb{S} 36'55	
minimum elong	3945 Oct 14 18:07	22° \mathbb{A} 08'02	0°46'34		3950 Sep 26 10:22	0° \mathbb{Q}	
	3945 Oct 27 01:02	0° \mathbb{M}			3950 Nov 17 00:38	0° \mathbb{P}	
morning rise	3945 Nov 27 19:48	20° \mathbb{M} 32'45		retrograde	3951 Jan 19 07:51	19° \mathbb{P} 06'50	
	3945 Dec 12 06:33	0° \mathbb{J}		min. Earth dist.	3951 Feb 25 19:43	10° \mathbb{P} 16'13	0.65611 AU
desc. node	3946 Jan 17 03:29	23° \mathbb{J} 50'03		opposition	3951 Feb 28 14:14	9° \mathbb{P} 09'39	4°35'34
	3946 Jan 26 07:07	0° \mathbb{Z}		greatest brilliancy	3951 Feb 27 23:28	9° \mathbb{P} 24'25	-1.3m
	3946 Mar 11 02:01	0° \approx			3951 Apr 03 10:21	30° \mathbb{R} \mathbb{Q}	
	3946 Apr 22 19:09	0° \mathbb{H}		direct	3951 Apr 09 02:49	29° \mathbb{Q} 47'54	
	3946 Jun 03 22:03	0° \mathbb{Y}			3951 Apr 14 22:34	0° \mathbb{P}	
	3946 Jul 16 17:49	0° \mathbb{B}			3951 Jul 07 21:42	0° \mathbb{A}	
	3946 Sep 02 19:30	0° \mathbb{H}			3951 Aug 29 22:12	0° \mathbb{M}	
retrograde	3946 Oct 28 03:05	17° \mathbb{H} 36'43		desc. node	3951 Sep 08 23:30	6° \mathbb{M} 08'16	
asc. node	3946 Nov 23 12:32	12° \mathbb{H} 48'33			3951 Oct 16 07:56	0° \mathbb{J}	
min. Earth dist.	3946 Nov 24 05:31	12° \mathbb{H} 34'50	0.43822 AU		3951 Nov 29 03:34	0° \mathbb{Z}	
opposition	3946 Dec 02 09:13	9° \mathbb{H} 50'26	0°32'37	evening set	3951 Dec 30 00:40	22° \mathbb{Z} 22'09	
greatest brilliancy	3946 Dec 02 02:18	9° \mathbb{H} 56'16	-2.5m		3952 Jan 09 06:40	0° \approx	
direct	3947 Jan 03 08:57	3° \mathbb{H} 30'31		max. Earth dist.	3952 Jan 20 01:01	8° \approx 06'50	2.39882 AU
	3947 Mar 22 17:17	0° \mathbb{S}			3952 Feb 17 12:31	0° \mathbb{H}	
	3947 May 15 04:11	0° \mathbb{Q}					
	3947 Jul 04 09:24	0° \mathbb{P}		conjunction	3952 Feb 27 09:35	7° \mathbb{H} 42'11	-1°-4'-48
	3947 Aug 22 07:25	0° \mathbb{A}		minimum elong	3952 Feb 27 10:00	7° \mathbb{H} 43'01	1°04'49
evening set	3947 Oct 05 21:39	28° \mathbb{A} 04'34			3952 Mar 26 17:46	0° \mathbb{Y}	
	3947 Oct 08 21:48	0° \mathbb{M}			3952 May 03 19:39	0° \mathbb{B}	
max. Earth dist.	3947 Oct 31 09:10	14° \mathbb{M} 31'52	2.62620 AU	morning rise	3952 May 06 23:46	2° \mathbb{B} 28'55	
					3952 Jun 11 15:21	0° \mathbb{H}	
conjunction	3947 Nov 20 12:43	27° \mathbb{M} 47'59	0°08'08	asc. node	3952 Jul 15 09:49	25° \mathbb{H} 10'52	
minimum elong	3947 Nov 20 12:59	27° \mathbb{M} 48'26	0°08'09		3952 Jul 22 00:56	0° \mathbb{S}	
behind sun begin	3947 Nov 19 20:08	27° \mathbb{M} 20'27			3952 Sep 02 19:27	0° \mathbb{Q}	
behind sun end	3947 Nov 21 05:51	28° \mathbb{M} 16'26			3952 Oct 19 00:40	0° \mathbb{P}	
	3947 Nov 23 20:02	0° \mathbb{J}			3952 Dec 10 20:17	0° \mathbb{A}	
desc. node	3947 Dec 05 02:36	7° \mathbb{J} 33'30		retrograde	3953 Feb 21 16:03	22° \mathbb{A} 40'45	
morning rise	3948 Jan 05 21:34	29° \mathbb{J} 19'28		opposition	3953 Apr 02 16:45	13° \mathbb{A} 06'47	3°33'07
	3948 Jan 06 20:52	0° \mathbb{Z}		greatest brilliancy	3953 Apr 02 20:51	13° \mathbb{A} 02'42	-1.2m
	3948 Feb 18 01:46	0° \approx		min. Earth dist.	3953 Apr 03 19:18	12° \mathbb{A} 40'26	0.67813 AU
	3948 Mar 29 17:36	0° \mathbb{H}		direct	3953 May 13 21:17	3° \mathbb{A} 11'34	
	3948 May 08 08:34	0° \mathbb{Y}		desc. node	3953 Jul 26 22:24	25° \mathbb{A} 58'57	
	3948 Jun 16 16:58	0° \mathbb{B}			3953 Aug 03 18:41	0° \mathbb{M}	
	3948 Jul 26 22:59	0° \mathbb{H}			3953 Sep 24 07:04	0° \mathbb{J}	
	3948 Sep 08 04:45	0° \mathbb{S}			3953 Nov 08 05:43	0° \mathbb{Z}	
asc. node	3948 Oct 10 10:45	19° \mathbb{S} 29'35			3953 Dec 19 13:48	0° \approx	
	3948 Oct 31 15:46	0° \mathbb{Q}			3954 Jan 27 17:14	0° \mathbb{H}	
retrograde	3948 Dec 13 05:58	10° \mathbb{Q} 30'59		evening set	3954 Mar 03 15:45	27° \mathbb{H} 30'46	
min. Earth dist.	3949 Jan 14 20:54	3° \mathbb{Q} 20'16	0.56963 AU		3954 Mar 06 19:10	0° \mathbb{Y}	
greatest brilliancy	3949 Jan 20 00:24	1° \mathbb{Q} 19'44	-1.7m		3954 Apr 13 19:54	0° \mathbb{B}	
opposition	3949 Jan 21 09:00	0° \mathbb{Q} 47'51	4°09'29				
	3949 Jan 23 10:25	30° \mathbb{R} \mathbb{S}		conjunction	3954 May 11 15:09	21° \mathbb{B} 33'05	0°-14'-39
direct	3949 Feb 26 19:27	22° \mathbb{S} 30'59		minimum elong	3954 May 11 16:32	21° \mathbb{B} 35'44	0°14'39
	3949 Apr 05 22:34	0° \mathbb{Q}		behind sun begin	3954 May 11 04:40	21° \mathbb{B} 12'58	
	3949 Jun 09 11:56	0° \mathbb{P}		behind sun end	3954 May 12 04:25	21° \mathbb{B} 58'28	
	3949 Aug 01 05:40	0° \mathbb{A}			3954 May 22 17:09	0° \mathbb{H}	

asc. node	3954 Jun 02 08:18	8°II00'44		opposition	3959 Aug 17 12:22	25°≈43'55	-6°-24'-38
max. Earth dist.	3954 Jul 01 19:49	29°II43'45	2.43991 AU	greatest brilliancy	3959 Aug 19 07:53	25°≈12'20	-2.7m
	3954 Jul 02 04:49	0°☿		min. Earth dist.	3959 Aug 23 16:07	23°≈57'23	0.40018 AU
morning rise	3954 Jul 16 03:06	9°☿59'16		direct	3959 Sep 19 08:46	19°≈33'55	
	3954 Aug 13 19:22	0°♈			3959 Oct 30 17:14	0°♏	
	3954 Sep 27 21:32	0°♏			3959 Dec 21 19:06	0°♑	
	3954 Nov 15 00:23	0°♑		asc. node	3960 Jan 23 04:35	21°♑55'00	
	3955 Jan 07 12:53	0°♒			3960 Feb 03 20:32	0°♓	
retrograde	3955 Mar 30 05:07	26°♒23'51			3960 Mar 18 00:01	0°♈	
opposition	3955 May 07 20:28	17°♒35'58	1°23'25		3960 Apr 30 22:12	0°☿	
greatest brilliancy	3955 May 08 05:19	17°♒27'24	-1.4m		3960 Jun 15 03:42	0°♈	
min. Earth dist.	3955 May 12 17:45	15°♒42'37	0.63425 AU		3960 Jul 31 14:15	0°♏	
desc. node	3955 Jun 13 21:02	7°♒43'18		evening set	3960 Aug 15 14:10	9°♏34'32	
direct	3955 Jun 18 05:02	7°♒36'04			3960 Sep 16 17:07	0°♑	
	3955 Aug 27 16:30	0°♓		max. Earth dist.	3960 Sep 28 19:13	7°♑40'43	2.67799 AU
	3955 Oct 16 12:44	0°♓					
	3955 Nov 28 06:40	0°≈		conjunction	3960 Sep 30 17:53	8°♑54'53	0°56'59
	3956 Jan 06 22:22	0°♏		minimum elong	3960 Sep 30 18:53	8°♑56'28	0°56'58
	3956 Feb 14 07:01	0°♑			3960 Nov 02 19:49	0°♒	
	3956 Mar 23 14:43	0°♓		morning rise	3960 Nov 13 21:50	7°♒06'08	
asc. node	3956 Apr 19 07:28	20°♓30'55			3960 Dec 19 08:47	0°♓	
	3956 May 01 20:56	0°♈		desc. node	3961 Feb 02 18:22	29°♓47'58	
evening set	3956 May 12 13:37	7°♈58'34			3961 Feb 03 01:38	0°♓	
	3956 Jun 11 18:44	0°☿			3961 Mar 19 23:10	0°≈	
					3961 May 03 07:39	0°♏	
conjunction	3956 Jul 11 01:20	20°☿36'51	0°47'49		3961 Jun 17 00:21	0°♑	
minimum elong	3956 Jul 10 23:23	20°☿33'29	0°47'48		3961 Aug 04 15:12	0°♓	
	3956 Jul 24 17:05	0°♈		retrograde	3961 Oct 04 00:07	20°♓02'42	
max. Earth dist.	3956 Aug 10 14:39	11°♈25'21	2.56808 AU	min. Earth dist.	3961 Oct 30 09:12	15°♓35'34	0.39304 AU
morning rise	3956 Sep 01 23:34	26°♈15'09		opposition	3961 Nov 05 16:09	13°♓43'37	-2°-19'-40
	3956 Sep 07 17:05	0°♏		greatest brilliancy	3961 Nov 05 00:06	13°♓55'34	-2.8m
	3956 Oct 24 14:49	0°♑		direct	3961 Dec 05 17:51	8°♓20'17	
	3956 Dec 12 12:25	0°♒		asc. node	3961 Dec 10 04:04	8°♓27'57	
	3957 Feb 02 19:40	0°♓			3962 Feb 11 06:25	0°♈	
	3957 Apr 10 03:07	0°♓			3962 Apr 05 05:20	0°☿	
desc. node	3957 Apr 30 19:52	4°♓47'29			3962 May 24 12:40	0°♈	
retrograde	3957 May 13 05:06	5°♓41'15			3962 Jul 12 03:28	0°♏	
	3957 Jun 12 21:41	30°♓47'29			3962 Aug 29 08:10	0°♑	
opposition	3957 Jun 17 23:57	28°♓12'41	-2°-7'-27	evening set	3962 Sep 21 16:59	14°♑43'01	
greatest brilliancy	3957 Jun 18 21:32	27°♓53'16	-1.9m		3962 Oct 15 16:31	0°♒	
min. Earth dist.	3957 Jun 26 01:32	25°♓19'17	0.52922 AU	max. Earth dist.	3962 Oct 21 19:10	3°♒55'48	2.65118 AU
direct	3957 Jul 27 06:11	19°♓05'41					
	3957 Sep 09 01:33	0°♓		conjunction	3962 Nov 05 21:36	13°♒42'37	0°24'40
	3957 Oct 31 13:17	0°≈		minimum elong	3962 Nov 05 22:21	13°♒43'50	0°24'40
	3957 Dec 12 22:38	0°♏			3962 Nov 30 16:20	0°♓	
	3958 Jan 21 16:33	0°♑		morning rise	3962 Dec 20 21:34	13°♓32'07	
	3958 Mar 02 01:14	0°♓		desc. node	3962 Dec 21 17:10	14°♓05'11	
asc. node	3958 Mar 07 06:56	3°♓57'34			3963 Jan 14 00:45	0°♓	
	3958 Apr 11 06:21	0°♈			3963 Feb 25 17:49	0°≈	
	3958 May 23 01:40	0°☿			3963 Apr 08 00:31	0°♏	
evening set	3958 Jul 05 15:07	29°☿55'05			3963 May 18 07:38	0°♑	
	3958 Jul 05 18:02	0°♈			3963 Jun 27 10:24	0°♓	
	3958 Aug 20 04:26	0°♏			3963 Aug 07 21:00	0°♈	
					3963 Sep 23 10:41	0°☿	
conjunction	3958 Aug 25 00:37	3°♏08'28	1°08'07	asc. node	3963 Oct 28 04:36	16°☿36'19	
minimum elong	3958 Aug 25 00:28	3°♏08'15	1°08'06	retrograde	3963 Nov 27 16:27	22°☿33'30	
max. Earth dist.	3958 Sep 06 07:40	11°♏04'51	2.65005 AU	min. Earth dist.	3963 Dec 28 01:54	16°☿12'01	0.52045 AU
	3958 Oct 05 21:42	0°♑		greatest brilliancy	3964 Jan 03 09:39	13°☿48'53	-2.0m
morning rise	3958 Oct 10 12:51	2°♑56'30		opposition	3964 Jan 04 18:20	13°☿17'56	3°18'13
	3958 Nov 22 09:32	0°♒		direct	3964 Feb 08 13:22	5°☿39'40	
	3959 Jan 09 10:30	0°♓			3964 Apr 24 21:50	0°♈	
	3959 Feb 27 11:24	0°♓			3964 Jun 19 05:47	0°♏	
desc. node	3959 Mar 18 19:25	11°♓28'19			3964 Aug 08 23:54	0°♑	
	3959 Apr 20 13:12	0°≈			3964 Sep 26 07:15	0°♒	
	3959 Jul 03 23:39	0°♏		evening set	3964 Oct 28 01:10	20°♒31'34	
retrograde	3959 Jul 17 11:20	1°♏06'10		desc. node	3964 Nov 07 15:38	27°♒32'23	
	3959 Jul 30 18:20	30°♒≈			3964 Nov 11 08:10	0°♓	

max. Earth dist.	3964 Nov 16 08:02	3°♂20'51	2.57188 AU		3969 Jul 09 14:01	0°♄	
					3969 Aug 21 03:44	0°♂	
conjunction	3964 Dec 14 09:53	22°♂31'42	0°-20'-40		3969 Oct 05 11:17	0°♄	
minimum elong	3964 Dec 14 09:05	22°♂30'19	0°20'39		3969 Nov 23 15:24	0°♄	
	3964 Dec 25 02:31	0°♄			3970 Jan 21 05:02	0°♄	
morning rise	3965 Feb 02 15:29	28°♄25'08		retrograde	3970 Mar 15 09:52	13°♄09'30	
	3965 Feb 04 19:07	0°♄		opposition	3970 Apr 23 18:03	4°♄00'35	2°21'57
	3965 Mar 16 19:50	0°♄		greatest brilliancy	3970 Apr 24 03:49	3°♄51'00	-1.3m
	3965 Apr 24 19:14	0°♄		min. Earth dist.	3970 Apr 27 04:28	2°♄39'53	0.65917 AU
	3965 Jun 02 11:57	0°♄			3970 May 04 05:48	30°♄	
	3965 Jul 11 21:01	0°♄		direct	3970 Jun 04 06:03	23°♄58'14	
	3965 Aug 22 05:20	0°♄		desc. node	3970 Jun 30 12:38	27°♄46'47	
asc. node	3965 Sep 14 03:14	15°♄35'14			3970 Jul 07 23:07	0°♄	
	3965 Oct 06 19:46	0°♄			3970 Sep 08 16:24	0°♄	
	3965 Dec 06 19:01	0°♄			3970 Oct 25 16:07	0°♄	
retrograde	3966 Jan 05 12:43	5°♄13'35			3970 Dec 06 15:24	0°♄	
	3966 Feb 02 06:48	30°♄			3971 Jan 15 00:01	0°♄	
min. Earth dist.	3966 Feb 10 06:21	26°♄58'14	0.62943 AU		3971 Feb 22 04:31	0°♄	
opposition	3966 Feb 14 13:11	25°♄15'43	4°39'03		3971 Apr 01 08:15	0°♄	
greatest brilliancy	3966 Feb 13 14:10	25°♄38'39	-1.4m	evening set	3971 Apr 17 09:43	12°♄27'27	
direct	3966 Mar 25 01:05	16°♄14'57		asc. node	3971 May 06 23:55	27°♄25'31	
	3966 May 19 00:03	0°♄			3971 May 10 09:41	0°♄	
	3966 Jul 17 22:01	0°♄					
	3966 Sep 06 19:32	0°♄		conjunction	3971 Jun 20 15:26	0°♄23'58	0°28'25
desc. node	3966 Sep 25 14:17	11°♄46'24		minimum elong	3971 Jun 20 13:36	0°♄20'40	0°28'23
	3966 Oct 23 14:52	0°♄			3971 Jun 20 02:06	0°♄	
	3966 Dec 06 07:52	0°♄		max. Earth dist.	3971 Jul 29 16:05	27°♄50'05	2.52230 AU
evening set	3966 Dec 10 00:45	2°♄37'44			3971 Aug 01 19:52	0°♄	
max. Earth dist.	3966 Dec 24 14:18	13°♄05'54	2.44968 AU	morning rise	3971 Aug 16 17:51	10°♄07'23	
	3967 Jan 16 13:10	0°♄			3971 Sep 15 18:22	0°♄	
					3971 Nov 01 22:48	0°♄	
conjunction	3967 Feb 02 13:57	12°♄50'02	-1°00'-56		3971 Dec 21 23:17	0°♄	
minimum elong	3967 Feb 02 12:32	12°♄47'22	1°00'56		3972 Feb 16 11:06	0°♄	
	3967 Feb 24 22:41	0°♄		retrograde	3972 Apr 24 01:28	19°♄24'25	
	3967 Apr 04 07:11	0°♄		desc. node	3972 May 17 11:26	15°♄58'35	
morning rise	3967 Apr 07 05:51	2°♄19'02		opposition	3972 May 31 04:36	11°♄19'09	0°-34'-17
greatest brilliancy	3967 Apr 07 18:59	2°♄44'53	1.2m	greatest brilliancy	3972 May 31 09:51	11°♄14'16	-1.7m
	3967 May 12 11:13	0°♄		min. Earth dist.	3972 Jun 07 04:42	8°♄42'25	0.57683 AU
	3967 Jun 20 08:00	0°♄		direct	3972 Jul 10 15:45	1°♄40'24	
	3967 Jul 30 19:10	0°♄			3972 Sep 27 02:57	0°♄	
asc. node	3967 Aug 02 01:17	1°♄37'27			3972 Nov 11 23:47	0°♄	
	3967 Sep 11 20:26	0°♄			3972 Dec 22 17:57	0°♄	
	3967 Oct 29 03:39	0°♄			3973 Jan 30 16:50	0°♄	
	3967 Dec 26 20:54	0°♄			3973 Mar 10 11:55	0°♄	
retrograde	3968 Feb 09 07:32	10°♄02'58		asc. node	3973 Mar 23 22:22	10°♄15'37	
opposition	3968 Mar 20 13:56	0°♄17'07	4°05'24		3973 Apr 19 05:11	0°♄	
greatest brilliancy	3968 Mar 20 11:34	0°♄19'29	-1.2m		3973 May 30 13:44	0°♄	
min. Earth dist.	3968 Mar 20 04:15	0°♄26'47	0.67739 AU	evening set	3973 Jun 16 13:46	11°♄56'29	
	3968 Mar 21 07:07	30°♄			3973 Jul 12 21:14	0°♄	
direct	3968 Apr 30 07:01	20°♄31'58					
	3968 Jun 13 13:48	0°♄		conjunction	3973 Aug 08 20:13	18°♄01'55	1°04'44
desc. node	3968 Aug 12 13:10	29°♄01'10		minimum elong	3973 Aug 08 19:20	18°♄00'28	1°04'44
	3968 Aug 14 06:48	0°♄			3973 Aug 27 01:49	0°♄	
	3968 Oct 02 13:31	0°♄		max. Earth dist.	3973 Aug 27 16:59	0°♄24'41	2.62432 AU
	3968 Nov 15 22:04	0°♄		morning rise	3973 Sep 26 05:50	19°♄28'15	
	3968 Dec 27 02:58	0°♄			3973 Oct 12 18:41	0°♄	
evening set	3969 Feb 04 02:24	29°♄51'49			3973 Nov 29 15:21	0°♄	
	3969 Feb 04 06:36	0°♄			3974 Jan 17 18:42	0°♄	
	3969 Mar 14 09:02	0°♄			3974 Mar 10 16:59	0°♄	
				desc. node	3974 Apr 04 09:54	12°♄59'27	
conjunction	3969 Apr 12 08:33	22°♄54'14	0°-42'-56		3974 May 14 01:34	0°♄	
minimum elong	3969 Apr 12 11:57	23°♄00'55	0°42'54	retrograde	3974 Jun 18 15:14	6°♄35'55	
	3969 Apr 21 09:21	0°♄		opposition	3974 Jul 21 13:56	0°♄21'32	-4°-55'-34
max. Earth dist.	3969 May 29 07:09	29°♄18'49	2.38731 AU		3974 Jul 22 16:40	30°♄	
	3969 May 30 04:49	0°♄		greatest brilliancy	3974 Jul 23 12:48	29°♄43'42	-2.4m
asc. node	3969 Jun 19 01:26	14°♄55'46		min. Earth dist.	3974 Jul 29 20:40	27°♄41'53	0.44759 AU
morning rise	3969 Jun 21 17:12	16°♄54'05		direct	3974 Aug 26 14:41	22°♄46'04	

	3974 Sep 29 10:55	0°♊		conjunction	3979 Nov 29 06:34	6°♊44'33	0°-2'-16
	3974 Nov 22 17:57	0°♋		minimum elong	3979 Nov 29 06:27	6°♊44'21	0°02'17
	3975 Jan 04 17:48	0°♌		behind sun begin	3979 Nov 28 11:02	6°♊11'40	
asc. node	3975 Feb 08 22:10	25°♌39'02		behind sun end	3979 Nov 30 01:52	7°♊17'04	
	3975 Feb 14 21:06	0°♍			3980 Jan 02 04:03	0°♎	
	3975 Mar 28 08:59	0°♎		morning rise	3980 Jan 15 17:36	9°♎32'30	
	3975 May 10 04:24	0°♏			3980 Feb 13 04:44	0°♐	
	3975 Jun 23 15:24	0°♐			3980 Mar 24 15:09	0°♋	
evening set	3975 Aug 01 04:25	25°♐13'15			3980 May 03 00:01	0°♌	
	3975 Aug 08 14:03	0°♑			3980 Jun 11 01:41	0°♍	
					3980 Jul 20 21:31	0°♎	
conjunction	3975 Sep 17 13:13	25°♑35'19	1°04'15		3980 Sep 01 03:34	0°♏	
minimum elong	3975 Sep 17 13:56	25°♑36'28	1°04'14	asc. node	3980 Sep 30 19:51	19°♏03'56	
max. Earth dist.	3975 Sep 20 19:54	27°♑40'36	2.67363 AU		3980 Oct 19 23:37	0°♐	
	3975 Sep 24 11:29	0°♒		retrograde	3980 Dec 22 00:11	20°♐13'13	
morning rise	3975 Nov 01 05:59	24°♒00'47		min. Earth dist.	3981 Jan 24 18:48	12°♐38'15	0.59331 AU
	3975 Nov 10 15:50	0°♓		greatest brilliancy	3981 Jan 29 06:59	10°♐51'37	-1.6m
	3975 Dec 27 15:05	0°♈		opposition	3981 Jan 30 13:06	10°♐21'54	4°26'35
	3976 Feb 12 06:07	0°♉		direct	3981 Mar 08 19:08	1°♐47'31	
desc. node	3976 Feb 20 09:12	5°♉14'37			3981 Jun 02 04:23	0°♑	
	3976 Mar 29 19:15	0°♊			3981 Jul 26 17:43	0°♒	
	3976 May 16 03:06	0°♋			3981 Sep 14 07:42	0°♓	
	3976 Jul 06 21:16	0°♌		desc. node	3981 Oct 12 05:31	17°♓49'00	
retrograde	3976 Sep 04 22:59	18°♌40'23			3981 Oct 30 17:30	0°♈	
min. Earth dist.	3976 Oct 03 19:07	13°♌56'51	0.37122 AU	evening set	3981 Nov 22 04:08	15°♈11'40	
opposition	3976 Oct 05 09:02	13°♌31'24	-5°-20'-48	max. Earth dist.	3981 Dec 07 01:58	25°♈32'30	2.50105 AU
greatest brilliancy	3976 Oct 05 04:39	13°♌34'21	-2.9m		3981 Dec 13 09:57	0°♉	
direct	3976 Nov 03 21:17	8°♌37'38					
asc. node	3976 Dec 26 21:35	23°♌50'01		conjunction	3982 Jan 12 02:23	21°♉22'36	0°-48'-14
	3977 Jan 07 22:25	0°♍		minimum elong	3982 Jan 12 00:40	21°♉19'27	0°48'14
	3977 Feb 27 16:41	0°♎			3982 Jan 23 18:49	0°♐	
	3977 Apr 15 23:19	0°♏			3982 Mar 04 09:27	0°♋	
	3977 Jun 02 01:47	0°♐		morning rise	3982 Mar 10 09:45	4°♋38'27	
	3977 Jul 19 14:19	0°♑			3982 Apr 11 22:47	0°♌	
	3977 Sep 05 06:15	0°♒			3982 May 20 06:30	0°♍	
evening set	3977 Sep 07 12:03	1°♒24'53			3982 Jun 28 06:08	0°♎	
max. Earth dist.	3977 Oct 12 19:30	23°♒49'34	2.66806 AU		3982 Aug 07 21:27	0°♏	
				asc. node	3982 Aug 18 18:35	7°♏43'41	
conjunction	3977 Oct 22 17:33	0°♓10'39	0°39'12		3982 Sep 20 11:17	0°♐	
minimum elong	3977 Oct 22 18:34	0°♓12'16	0°39'11		3982 Nov 08 18:52	0°♑	
	3977 Oct 22 10:55	0°♔		retrograde	3983 Jan 27 00:09	27°♑09'57	
morning rise	3977 Dec 06 00:15	28°♓57'21		min. Earth dist.	3983 Mar 06 09:41	18°♑02'07	0.66653 AU
	3977 Dec 07 14:17	0°♈		opposition	3983 Mar 08 08:06	17°♑15'42	4°27'42
desc. node	3978 Jan 07 08:05	20°♈29'40		greatest brilliancy	3983 Mar 07 21:56	17°♑25'52	-1.3m
	3978 Jan 21 08:49	0°♉		direct	3983 Apr 17 08:34	7°♑44'30	
	3978 Mar 05 17:32	0°♊			3983 Jun 30 05:50	0°♒	
	3978 Apr 16 20:19	0°♋			3983 Aug 24 08:48	0°♓	
	3978 May 28 03:23	0°♌		desc. node	3983 Aug 30 04:52	3°♓29'05	
	3978 Jul 08 14:29	0°♍			3983 Oct 11 08:38	0°♈	
	3978 Aug 21 18:25	0°♎			3983 Nov 24 08:51	0°♉	
	3978 Oct 24 19:54	0°♏			3984 Jan 04 12:46	0°♐	
retrograde	3978 Nov 08 23:43	1°♏37'35		evening set	3984 Jan 11 12:15	5°♐15'01	
asc. node	3978 Nov 13 20:10	1°♏26'56			3984 Feb 12 17:49	0°♋	
	3978 Nov 23 18:19	30°♒♐		max. Earth dist.	3984 Feb 16 09:07	2°♋50'10	2.37585 AU
min. Earth dist.	3978 Dec 07 04:24	26°♐08'00	0.46731 AU				
opposition	3978 Dec 15 11:18	23°♐11'35	1°47'38	conjunction	3984 Mar 13 23:04	23°♋43'23	-1°-1'-5
greatest brilliancy	3978 Dec 14 13:57	23°♐30'37	-2.3m	minimum elong	3984 Mar 14 01:04	23°♋47'20	1°01'06
direct	3979 Jan 17 11:17	16°♐21'09			3984 Mar 21 21:41	0°♌	
	3979 Mar 11 00:07	0°♏			3984 Apr 28 22:25	0°♍	
	3979 May 08 09:30	0°♐		morning rise	3984 May 24 09:00	19°♍47'07	
	3979 Jun 28 22:48	0°♑			3984 Jun 06 17:15	0°♎	
	3979 Aug 17 10:03	0°♒		asc. node	3984 Jul 05 16:32	21°♎41'21	
	3979 Oct 04 06:01	0°♓			3984 Jul 17 01:30	0°♏	
evening set	3979 Oct 14 04:34	6°♓22'50			3984 Aug 28 16:39	0°♐	
max. Earth dist.	3979 Nov 06 07:48	21°♓27'11	2.60894 AU		3984 Oct 13 10:33	0°♑	
	3979 Nov 19 05:15	0°♈			3984 Dec 03 09:47	0°♒	
desc. node	3979 Nov 25 06:34	4°♈03'07			3985 Feb 21 09:01	0°♓	

retrograde	3985 Mar 01 10:11	0°♄23'31			3990 Jan 15 14:47	0°♄	
	3985 Mar 09 05:47	30°♄			3990 Feb 24 10:10	0°♄	
opposition	3985 Apr 10 06:43	20°♄57'33	3°09'39	asc. node	3990 Feb 25 14:19	0°♄52'44	
greatest brilliancy	3985 Apr 10 13:34	20°♄50'46	-1.2m		3990 Apr 05 23:31	0°♄	
min. Earth dist.	3985 Apr 12 05:13	20°♄11'36	0.67430 AU		3990 May 18 01:17	0°♄	
direct	3985 May 21 16:01	10°♄58'36			3990 Jun 30 22:49	0°♄	
desc. node	3985 Jul 17 03:22	25°♄39'15		evening set	3990 Jul 15 15:55	9°♄47'49	
	3985 Jul 26 13:52	0°♄			3990 Aug 15 12:19	0°♄	
	3985 Sep 18 11:56	0°♄					
	3985 Nov 03 01:28	0°♄		conjunction	3990 Sep 02 19:15	11°♄48'22	1°07'53
	3985 Dec 14 14:45	0°♄		minimum elong	3990 Sep 02 19:29	11°♄48'45	1°07'53
	3986 Jan 22 20:03	0°♄		max. Earth dist.	3990 Sep 11 17:39	17°♄32'19	2.66069 AU
	3986 Mar 01 22:32	0°♄			3990 Oct 01 06:10	0°♄	
evening set	3986 Mar 19 20:29	14°♄09'58		morning rise	3990 Oct 18 12:43	10°♄58'24	
greatest brilliancy	3986 Mar 23 02:31	16°♄43'57	1.2m		3990 Nov 17 14:17	0°♄	
	3986 Apr 08 23:39	0°♄			3991 Jan 04 04:10	0°♄	
	3986 May 17 21:23	0°♄			3991 Feb 21 03:35	0°♄	
asc. node	3986 May 23 16:45	4°♄23'13		desc. node	3991 Mar 08 23:29	9°♄46'02	
					3991 Apr 11 12:03	0°♄	
conjunction	3986 May 27 00:19	6°♄52'45	0°02'16		3991 Jun 05 07:49	0°♄	
minimum elong	3986 May 27 00:07	6°♄52'23	0°02'16	retrograde	3991 Aug 04 10:25	17°♄24'30	
behind sun begin	3986 May 25 20:37	6°♄00'47		opposition	3991 Sep 03 15:30	12°♄22'52	-6°-40'-18
behind sun end	3986 May 28 03:36	7°♄43'54		greatest brilliancy	3991 Sep 04 21:53	12°♄02'13	-2.8m
	3986 Jun 27 09:22	0°♄		min. Earth dist.	3991 Sep 07 14:34	11°♄18'27	0.38182 AU
max. Earth dist.	3986 Jul 13 16:44	11°♄40'22	2.47007 AU	direct	3991 Oct 04 17:25	6°♄55'45	
morning rise	3986 Jul 28 09:27	21°♄59'39			3991 Dec 10 00:52	0°♄	
	3986 Aug 08 23:39	0°♄		asc. node	3992 Jan 13 13:11	21°♄15'22	
	3986 Sep 22 22:37	0°♄			3992 Jan 26 21:02	0°♄	
	3986 Nov 09 14:21	0°♄			3992 Mar 11 13:04	0°♄	
	3986 Dec 31 09:45	0°♄			3992 Apr 25 07:22	0°♄	
	3987 Mar 08 23:13	0°♄			3992 Jun 10 01:20	0°♄	
retrograde	3987 Apr 08 03:44	4°♄46'46			3992 Jul 26 19:22	0°♄	
	3987 May 05 20:55	30°♄		evening set	3992 Aug 24 01:39	17°♄56'42	
opposition	3987 May 16 08:14	26°♄12'27	0°43'52		3992 Sep 12 02:09	0°♄	
greatest brilliancy	3987 May 16 13:57	26°♄06'59	-1.5m	max. Earth dist.	3992 Oct 03 22:59	13°♄52'58	2.67671 AU
min. Earth dist.	3987 May 22 00:31	24°♄02'09	0.61632 AU				
desc. node	3987 Jun 04 01:50	19°♄35'17		conjunction	3992 Oct 08 18:29	16°♄56'45	0°51'15
direct	3987 Jun 26 12:03	16°♄17'18		minimum elong	3992 Oct 08 19:33	16°♄58'26	0°51'14
	3987 Aug 17 16:04	0°♄			3992 Oct 29 05:07	0°♄	
	3987 Oct 10 01:38	0°♄		morning rise	3992 Nov 21 20:25	15°♄12'52	
	3987 Nov 22 15:08	0°♄			3992 Dec 14 14:04	0°♄	
	3988 Jan 01 14:38	0°♄		desc. node	3993 Jan 23 22:51	26°♄40'44	
	3988 Feb 09 03:22	0°♄			3993 Jan 28 21:59	0°♄	
	3988 Mar 18 14:11	0°♄			3993 Mar 14 04:05	0°♄	
asc. node	3988 Apr 09 16:21	16°♄57'28			3993 Apr 26 12:54	0°♄	
	3988 Apr 26 23:15	0°♄			3993 Jun 08 13:40	0°♄	
evening set	3988 May 25 23:32	21°♄21'55			3993 Jul 23 01:10	0°♄	
	3988 Jun 06 23:29	0°♄			3993 Sep 16 09:23	0°♄	
	3988 Jul 19 23:46	0°♄		retrograde	3993 Oct 18 04:25	6°♄35'10	
conjunction	3988 Jul 22 01:05	1°♄23'54	0°55'48	min. Earth dist.	3993 Nov 13 17:02	1°♄52'04	0.41624 AU
minimum elong	3988 Jul 21 23:26	1°♄21'06	0°55'48	opposition	3993 Nov 19 13:57	30°♄	
max. Earth dist.	3988 Aug 17 06:31	18°♄59'48	2.59009 AU	greatest brilliancy	3993 Nov 21 07:42	29°♄26'25	0°-35'-50
	3988 Sep 02 23:56	0°♄		asc. node	3993 Nov 21 01:44	29°♄31'12	-2.6m
morning rise	3988 Sep 11 03:04	5°♄17'29		direct	3993 Nov 30 13:19	26°♄39'31	
	3988 Oct 19 18:27	0°♄			3993 Dec 22 11:01	23°♄32'23	
	3988 Dec 07 04:29	0°♄			3994 Jan 25 00:52	0°♄	
	3989 Jan 27 00:11	0°♄			3994 Mar 28 06:38	0°♄	
	3989 Mar 25 19:25	0°♄			3994 May 18 13:36	0°♄	
desc. node	3989 Apr 21 00:42	10°♄14'09			3994 Jul 07 00:01	0°♄	
retrograde	3989 May 25 06:49	16°♄19'25		evening set	3994 Aug 24 14:07	0°♄	
opposition	3989 Jun 29 04:19	9°♄14'59	-3°-6'-50		3994 Sep 29 19:19	22°♄47'33	
greatest brilliancy	3989 Jun 30 12:31	8°♄46'55	-2.1m	max. Earth dist.	3994 Oct 11 02:20	0°♄	
min. Earth dist.	3989 Jul 07 15:24	6°♄18'44	0.50054 AU		3994 Oct 27 06:40	10°♄25'56	2.63837 AU
direct	3989 Aug 06 12:51	0°♄33'51		conjunction	3994 Nov 14 04:11	22°♄07'19	0°15'16
	3989 Oct 22 20:21	0°♄		minimum elong	3994 Nov 14 04:40	22°♄08'08	0°15'15
	3989 Dec 06 03:03	0°♄		behind sun begin	3994 Nov 13 22:39	21°♄58'14	

behind sun end	3994 Nov 14 10:42	22° \mathbb{M} 18'02		3999 Oct 23 00:52	0° \mathbb{M}	
	3994 Nov 26 01:59	0° \mathbb{X}		3999 Dec 16 10:51	0° \mathbb{L}	
desc. node	3994 Dec 11 22:11	10° \mathbb{X} 36'29		retrograde	4000 Feb 16 22:28	17° \mathbb{L} 47'42
morning rise	3994 Dec 29 20:20	22° \mathbb{X} 48'00		opposition	4000 Mar 28 02:53	8° \mathbb{L} 07'58 3°47'38
	3995 Jan 09 07:02	0° \mathbb{Z}		greatest brilliancy	4000 Mar 28 04:18	8° \mathbb{L} 06'34 -1.2m
	3995 Feb 20 17:48	0° \approx		min. Earth dist.	4000 Mar 28 13:16	7° \mathbb{L} 57'39 0.67912 AU
	3995 Apr 02 16:30	0° \mathbb{H}			4000 Apr 21 16:15	30° \mathbb{R} \mathbb{M}
	3995 May 12 14:09	0° \mathbb{Y}		direct	4000 May 08 03:35	28° \mathbb{M} 16'43
	3995 Jun 21 05:23	0° \mathbb{B}			4000 May 25 15:00	0° \mathbb{L}
	3995 Jul 31 20:36	0° \mathbb{II}		desc. node	4000 Aug 02 18:16	27° \mathbb{L} 22'46
	3995 Sep 14 00:51	0° \mathbb{S}			4000 Aug 07 15:32	0° \mathbb{M}
asc. node	3995 Oct 18 11:27	19° \mathbb{S} 28'18			4000 Sep 27 04:39	0° \mathbb{X}
	3995 Nov 14 01:59	0° \mathbb{Q}			4000 Nov 10 22:36	0° \mathbb{Z}
retrograde	3995 Dec 07 08:02	3° \mathbb{Q} 32'24			4000 Dec 22 06:23	0° \approx
	3995 Dec 29 13:31	30° \mathbb{R} \mathbb{S}			4001 Jan 30 10:39	0° \mathbb{H}
min. Earth dist.	3996 Jan 07 23:25	26° \mathbb{S} 43'28 0.54862 AU		evening set	4001 Feb 19 07:17	15° \mathbb{H} 35'08
greatest brilliancy	3996 Jan 13 16:02	24° \mathbb{S} 31'57 -1.8m			4001 Mar 09 12:55	0° \mathbb{Y}
opposition	3996 Jan 15 01:49	23° \mathbb{S} 59'21 3°52'02			4001 Apr 16 13:03	0° \mathbb{B}
direct	3996 Feb 19 20:03	15° \mathbb{S} 58'33				
	3996 Apr 14 11:39	0° \mathbb{Q}		conjunction	4001 Apr 29 01:18	9° \mathbb{B} 46'01 0°-27'-29
	3996 Jun 12 23:47	0° \mathbb{M}		minimum elong	4001 Apr 29 03:51	9° \mathbb{B} 50'59 0°27'28
	3996 Aug 03 19:49	0° \mathbb{L}			4001 May 25 08:44	0° \mathbb{II}
	3996 Sep 21 13:06	0° \mathbb{M}		asc. node	4001 Jun 09 09:22	11° \mathbb{II} 19'35
desc. node	3996 Oct 28 20:30	24° \mathbb{M} 06'46		max. Earth dist.	4001 Jun 20 06:02	19° \mathbb{II} 23'35 2.41541 AU
evening set	3996 Nov 05 19:59	29° \mathbb{M} 24'28			4001 Jul 04 17:59	0° \mathbb{S}
	3996 Nov 06 17:17	0° \mathbb{X}		morning rise	4001 Jul 05 23:38	0° \mathbb{S} 53'44
max. Earth dist.	3996 Nov 23 05:56	11° \mathbb{X} 08'32 2.54861 AU			4001 Aug 16 06:32	0° \mathbb{Q}
	3996 Dec 20 11:31	0° \mathbb{Z}			4001 Sep 30 08:51	0° \mathbb{M}
					4001 Nov 17 18:59	0° \mathbb{L}
conjunction	3996 Dec 24 04:45	2° \mathbb{Z} 37'26 0°-31'-13			4002 Jan 11 18:53	0° \mathbb{M}
minimum elong	3996 Dec 24 03:33	2° \mathbb{Z} 35'19 0°31'12		retrograde	4002 Mar 23 17:30	21° \mathbb{M} 09'10
	3997 Jan 31 01:41	0° \approx		opposition	4002 May 01 17:43	12° \mathbb{M} 11'15 1°49'03
morning rise	3997 Feb 14 12:18	10° \approx 44'12		greatest brilliancy	4002 May 02 03:23	12° \mathbb{M} 01'50 -1.4m
	3997 Mar 11 22:57	0° \mathbb{H}		min. Earth dist.	4002 May 05 23:36	10° \mathbb{M} 32'14 0.64668 AU
	3997 Apr 19 18:25	0° \mathbb{Y}		direct	4002 Jun 12 05:25	2° \mathbb{M} 09'29
	3997 May 28 07:01	0° \mathbb{B}		desc. node	4002 Jun 20 16:51	2° \mathbb{M} 35'36
	3997 Jul 06 11:14	0° \mathbb{II}			4002 Sep 01 09:25	0° \mathbb{X}
	3997 Aug 16 10:21	0° \mathbb{S}			4002 Oct 19 22:15	0° \mathbb{Z}
asc. node	3997 Sep 04 10:30	13° \mathbb{S} 12'15			4002 Dec 01 08:42	0° \approx
	3997 Sep 29 23:20	0° \mathbb{Q}			4003 Jan 09 21:55	0° \mathbb{H}
	3997 Nov 22 18:51	0° \mathbb{M}			4003 Feb 17 04:38	0° \mathbb{Y}
retrograde	3998 Jan 13 12:05	13° \mathbb{M} 46'13			4003 Mar 27 09:54	0° \mathbb{B}
min. Earth dist.	3998 Feb 19 06:09	5° \mathbb{M} 10'48 0.64552 AU		asc. node	4003 Apr 27 08:05	23° \mathbb{B} 47'50
opposition	3998 Feb 22 17:03	3° \mathbb{M} 48'00 4°38'53		evening set	4003 May 02 12:30	27° \mathbb{B} 43'20
greatest brilliancy	3998 Feb 21 22:35	4° \mathbb{M} 06'27 -1.4m			4003 May 05 13:00	0° \mathbb{II}
	3998 Mar 04 15:40	30° \mathbb{R} \mathbb{Q}			4003 Jun 15 07:00	0° \mathbb{S}
direct	3998 Apr 02 19:44	24° \mathbb{Q} 34'54				
	3998 May 05 03:01	0° \mathbb{M}		conjunction	4003 Jul 03 03:05	12° \mathbb{S} 41'18 0°40'26
	3998 Jul 11 11:54	0° \mathbb{L}		minimum elong	4003 Jul 03 01:03	12° \mathbb{S} 37'43 0°40'24
	3998 Sep 01 14:13	0° \mathbb{M}			4003 Jul 28 01:52	0° \mathbb{Q}
desc. node	3998 Sep 15 19:08	8° \mathbb{M} 46'23		max. Earth dist.	4003 Aug 06 08:53	6° \mathbb{Q} 19'26 2.54850 AU
	3998 Oct 18 18:54	0° \mathbb{X}		morning rise	4003 Aug 26 18:52	19° \mathbb{Q} 59'59
	3998 Dec 01 14:51	0° \mathbb{Z}			4003 Sep 10 23:41	0° \mathbb{M}
evening set	3998 Dec 21 01:07	13° \mathbb{Z} 56'07			4003 Oct 27 22:49	0° \mathbb{L}
max. Earth dist.	3999 Jan 06 13:21	26° \mathbb{Z} 04'03 2.42103 AU			4003 Dec 16 05:14	0° \mathbb{M}
	3999 Jan 11 20:04	0° \approx			4004 Feb 07 20:29	0° \mathbb{X}
				retrograde	4004 May 04 14:31	28° \mathbb{X} 55'19
conjunction	3999 Feb 16 02:55	26° \approx 51'18 -1°-4'-34		desc. node	4004 May 07 15:21	28° \mathbb{X} 51'55
minimum elong	3999 Feb 16 02:22	26° \approx 50'13 1°04'34		opposition	4004 Jun 10 01:07	21° \mathbb{X} 09'23 -1°-26'-13
	3999 Feb 20 04:23	0° \mathbb{H}		greatest brilliancy	4004 Jun 10 15:13	20° \mathbb{X} 56'29 -1.8m
	3999 Mar 30 11:19	0° \mathbb{Y}		min. Earth dist.	4004 Jun 17 16:54	18° \mathbb{X} 21'33 0.55137 AU
morning rise	3999 Apr 24 08:12	19° \mathbb{Y} 36'23		direct	4004 Jul 19 22:48	11° \mathbb{X} 46'01
	3999 May 07 13:50	0° \mathbb{B}			4004 Sep 17 08:40	0° \mathbb{Z}
	3999 Jun 15 09:10	0° \mathbb{II}			4004 Nov 05 04:06	0° \approx
asc. node	3999 Jul 23 10:25	28° \mathbb{II} 19'27			4004 Dec 16 18:33	0° \mathbb{H}
	3999 Jul 25 17:51	0° \mathbb{S}			4005 Jan 25 03:15	0° \mathbb{Y}
	3999 Sep 06 12:58	0° \mathbb{Q}			4005 Mar 05 04:46	0° \mathbb{B}

asc. node	4005 Mar 14 07:31	6°♄55'41			4010 Jan 16 12:18	0°♄	
	4005 Apr 14 03:21	0°♄			4010 Feb 28 12:44	0°♄	
	4005 May 25 16:17	0°♄			4010 Apr 11 04:27	0°♄	
evening set	4005 Jun 27 15:40	22°♄53'04			4010 May 21 21:19	0°♄	
	4005 Jul 08 03:15	0°♄			4010 Jul 01 11:37	0°♄	
					4010 Aug 12 18:09	0°♄	
conjunction	4005 Aug 18 05:24	27°♄16'17	1°07'17		4010 Oct 01 08:52	0°♄	
minimum elong	4005 Aug 18 04:57	27°♄15'34	1°07'18	asc. node	4010 Nov 04 05:06	12°♄37'53	
	4005 Aug 22 09:46	0°♄		retrograde	4010 Nov 19 21:23	14°♄21'26	
max. Earth dist.	4005 Sep 02 10:53	7°♄10'08	2.63952 AU	min. Earth dist.	4010 Dec 19 06:41	8°♄23'42	0.49678 AU
morning rise	4005 Oct 04 11:57	27°♄43'11		greatest brilliancy	4010 Dec 26 02:46	5°♄52'36	-2.1m
	4005 Oct 08 02:01	0°♄		opposition	4010 Dec 27 08:39	5°♄25'00	2°45'32
	4005 Nov 24 16:49	0°♄			4011 Jan 13 17:48	30°♄	
	4006 Jan 12 03:43	0°♄		direct	4011 Jan 30 08:39	28°♄07'06	
	4006 Mar 03 05:23	0°♄			4011 Feb 17 02:06	0°♄	
desc. node	4006 Mar 25 15:10	12°♄45'43			4011 Apr 30 19:11	0°♄	
	4006 Apr 27 12:01	0°♄			4011 Jun 23 06:17	0°♄	
retrograde	4006 Jul 04 07:25	20°♄18'45			4011 Aug 12 10:36	0°♄	
opposition	4006 Aug 05 03:58	14°♄34'04	-5°-51'-52		4011 Sep 29 13:36	0°♄	
greatest brilliancy	4006 Aug 07 04:10	13°♄57'12	-2.5m	evening set	4011 Oct 22 14:28	14°♄49'59	
min. Earth dist.	4006 Aug 12 13:18	12°♄19'27	0.41974 AU	max. Earth dist.	4011 Nov 12 10:49	28°♄33'27	2.58943 AU
direct	4006 Sep 08 11:33	7°♄45'00			4011 Nov 14 14:45	0°♄	
	4006 Nov 11 10:00	0°♄		desc. node	4011 Nov 15 11:25	0°♄34'30	
	4006 Dec 27 19:10	0°♄					
asc. node	4007 Jan 30 05:35	23°♄33'40		conjunction	4011 Dec 08 07:14	16°♄00'28	0°-12'-51
	4007 Feb 08 06:17	0°♄		minimum elong	4011 Dec 08 06:45	15°♄59'38	0°12'52
	4007 Mar 22 12:53	0°♄		behind sun begin	4011 Dec 07 18:26	15°♄38'35	
	4007 May 04 20:58	0°♄		behind sun end	4011 Dec 08 19:03	16°♄20'43	
	4007 Jun 18 16:40	0°♄			4011 Dec 28 12:11	0°♄	
evening set	4007 Aug 03 20:48	0°♄		morning rise	4012 Jan 26 03:35	20°♄22'29	
	4007 Aug 10 02:03	3°♄59'26			4012 Feb 08 09:09	0°♄	
	4007 Sep 19 20:48	0°♄			4012 Mar 19 14:46	0°♄	
					4012 Apr 27 18:32	0°♄	
conjunction	4007 Sep 25 16:56	3°♄42'47	1°00'24		4012 Jun 05 14:39	0°♄	
minimum elong	4007 Sep 25 17:51	3°♄44'14	1°00'23		4012 Jul 15 03:11	0°♄	
max. Earth dist.	4007 Sep 26 00:45	3°♄55'12	2.67715 AU		4012 Aug 25 17:37	0°♄	
	4007 Nov 06 00:06	0°♄		asc. node	4012 Sep 21 04:12	17°♄39'36	
morning rise	4007 Nov 09 01:13	1°♄56'41			4012 Oct 11 05:50	0°♄	
	4007 Dec 22 17:40	0°♄		retrograde	4012 Dec 30 10:00	29°♄24'36	
	4008 Feb 06 20:06	0°♄		min. Earth dist.	4013 Feb 03 07:30	21°♄26'44	0.61439 AU
desc. node	4008 Feb 10 14:24	2°♄27'59		greatest brilliancy	4013 Feb 07 04:01	19°♄54'59	-1.5m
	4008 Mar 23 09:21	0°♄		opposition	4013 Feb 08 06:25	19°♄28'45	4°36'20
	4008 May 07 19:46	0°♄		direct	4013 Mar 18 06:02	10°♄38'58	
	4008 Jun 23 13:18	0°♄			4013 May 24 17:02	0°♄	
	4008 Aug 19 06:00	0°♄			4013 Jul 20 23:31	0°♄	
retrograde	4008 Sep 21 22:29	7°♄03'58			4013 Sep 09 07:48	0°♄	
min. Earth dist.	4008 Oct 18 21:58	2°♄38'16	0.37942 AU	desc. node	4013 Oct 02 10:06	14°♄35'15	
opposition	4008 Oct 23 10:36	1°♄22'01	-3°-43'-11		4013 Oct 26 00:11	0°♄	
greatest brilliancy	4008 Oct 22 18:50	1°♄33'05	-2.9m	evening set	4013 Dec 02 02:00	25°♄17'59	
	4008 Oct 28 10:05	30°♄			4013 Dec 08 18:23	0°♄	
direct	4008 Nov 21 22:59	26°♄17'59		max. Earth dist.	4013 Dec 16 07:03	5°♄20'49	2.47309 AU
	4008 Dec 16 12:48	0°♄			4014 Jan 19 02:17	0°♄	
asc. node	4008 Dec 17 04:43	0°♄11'26					
	4009 Feb 18 12:31	0°♄		conjunction	4014 Jan 23 20:25	3°♄32'55	0°-56'-17
	4009 Apr 09 08:14	0°♄		minimum elong	4014 Jan 23 18:43	3°♄29'44	0°56'17
	4009 May 27 12:47	0°♄			4014 Feb 27 14:47	0°♄	
	4009 Jul 14 14:44	0°♄		morning rise	4014 Mar 25 13:17	20°♄11'03	
	4009 Aug 31 13:38	0°♄			4014 Apr 07 01:38	0°♄	
evening set	4009 Sep 15 15:33	9°♄30'11			4014 May 15 06:53	0°♄	
	4009 Oct 17 20:39	0°♄		greatest brilliancy	4014 May 24 05:01	6°♄57'18	1.2m
max. Earth dist.	4009 Oct 18 01:32	0°♄07'50	2.65982 AU		4014 Jun 23 04:02	0°♄	
					4014 Aug 02 15:27	0°♄	
conjunction	4009 Oct 30 18:53	8°♄19'26	0°31'00	asc. node	4014 Aug 09 02:10	4°♄37'35	
minimum elong	4009 Oct 30 19:46	8°♄20'51	0°30'59		4014 Sep 14 19:17	0°♄	
	4009 Dec 02 22:39	0°♄			4014 Nov 01 16:07	0°♄	
morning rise	4009 Dec 14 09:21	7°♄36'14			4015 Jan 04 11:13	0°♄	
desc. node	4009 Dec 28 12:56	17°♄05'54		retrograde	4015 Feb 03 15:21	5°♄04'17	

	4015 Mar 03 12:33	30°R			4020 Feb 03 20:33	0°Y		
opposition	4015 Mar 15 23:35	25°M 14'18	4°15'58		4020 Mar 13 11:03	0°B		
min. Earth dist.	4015 Mar 14 21:41	25°M 40'09	0.67381 AU	asc. node	4020 Mar 30 22:57	13°B 24'16		
greatest brilliancy	4015 Mar 15 17:54	25°M 19'58	-1.2m		4020 Apr 21 23:30	0°II		
direct	4015 Apr 25 10:14	15°M 34'51			4020 Jun 02 03:02	0°S		
	4015 Jun 21 01:36	0°A		evening set	4020 Jun 07 13:48	3°S 52'13		
	4015 Aug 18 11:44	0°M			4020 Jul 15 05:54	0°Q		
desc. node	4015 Aug 20 09:02	1°M 05'35						
	4015 Oct 06 06:02	0°J		conjunction	4020 Aug 01 09:50	11°Q 34'16	1°01'42	
	4015 Nov 19 12:33	0°C		minimum elong	4020 Aug 01 08:37	11°Q 32'12	1°01'41	
	4015 Dec 30 18:13	0°≈		max. Earth dist.	4020 Aug 23 11:39	26°Q 11'22	2.61014 AU	
evening set	4016 Jan 24 23:09	19°≈ 09'03			4020 Aug 29 07:20	0°M		
	4016 Feb 07 23:20	0°K		morning rise	4020 Sep 19 21:25	13°M 59'11		
	4016 Mar 17 02:42	0°Y			4020 Oct 14 23:50	0°A		
					4020 Dec 02 00:56	0°M		
conjunction	4016 Mar 30 06:52	10°Y 25'31	0°-52'-31		4021 Jan 20 18:51	0°J		
minimum elong	4016 Mar 30 10:05	10°Y 31'52	0°52'31		4021 Mar 15 13:47	0°C		
max. Earth dist.	4016 Apr 22 23:27	29°Y 06'20	2.37081 AU	desc. node	4021 Apr 11 05:33	12°C 49'24		
	4016 Apr 24 02:48	0°B		retrograde	4021 Jun 07 12:28	27°C 49'36		
	4016 Jun 01 21:07	0°II		opposition	4021 Jul 11 08:28	21°C 11'52	-4°-8'-36	
morning rise	4016 Jun 09 18:41	5°II 59'11		greatest brilliancy	4021 Jul 13 02:16	20°C 36'46	-2.2m	
asc. node	4016 Jun 26 02:05	18°II 11'14		min. Earth dist.	4021 Jul 19 20:44	18°C 21'04	0.47125 AU	
	4016 Jul 12 04:35	0°S		direct	4021 Aug 17 12:57	13°C 03'36		
	4016 Aug 23 17:01	0°Q			4021 Oct 11 11:18	0°≈		
	4016 Oct 08 02:30	0°M			4021 Nov 28 11:21	0°K		
	4016 Nov 26 19:24	0°A			4022 Jan 09 02:58	0°Y		
	4017 Jan 28 02:24	0°M		asc. node	4022 Feb 15 22:31	28°Y 03'43		
retrograde	4017 Mar 09 08:06	8°M 08'49			4022 Feb 18 13:17	0°B		
	4017 Apr 15 01:14	30°R A			4022 Mar 31 12:52	0°II		
opposition	4017 Apr 17 22:56	28°A 51'49	2°42'56		4022 May 12 22:36	0°S		
greatest brilliancy	4017 Apr 18 07:43	28°A 43'12	-1.3m		4022 Jun 26 01:58	0°Q		
min. Earth dist.	4017 Apr 20 17:37	27°A 46'19	0.66715 AU	evening set	4022 Jul 25 06:26	19°Q 14'58		
direct	4017 May 29 11:02	18°A 50'24			4022 Aug 10 19:28	0°M		
desc. node	4017 Jul 07 08:07	26°A 34'34						
	4017 Jul 16 07:10	0°M		conjunction	4022 Sep 11 08:04	20°M 15'29	1°06'13	
	4017 Sep 12 07:20	0°J		minimum elong	4022 Sep 11 08:37	20°M 16'21	1°06'14	
	4017 Oct 28 16:53	0°C		max. Earth dist.	4022 Sep 17 01:32	23°M 54'56	2.66895 AU	
	4017 Dec 09 12:45	0°≈			4022 Sep 26 14:42	0°A		
greatest brilliancy	4018 Jan 10 06:56	24°≈ 07'36	1.2m	morning rise	4022 Oct 26 10:14	18°A 56'39		
	4018 Jan 17 20:38	0°K			4022 Nov 12 20:20	0°M		
	4018 Feb 25 00:28	0°Y			4022 Dec 30 01:44	0°J		
	4018 Apr 04 02:37	0°B			4023 Feb 15 05:40	0°C		
evening set	4018 Apr 05 03:04	0°B 47'47		desc. node	4023 Feb 27 04:45	7°C 35'15		
	4018 May 13 01:35	0°II			4023 Apr 03 19:28	0°≈		
asc. node	4018 May 14 01:04	0°II 44'23			4023 May 23 09:18	0°K		
					4023 Jul 24 11:41	0°Y		
conjunction	4018 Jun 10 08:25	21°II 04'23	0°17'56	retrograde	4023 Aug 22 21:47	5°Y 06'35		
minimum elong	4018 Jun 10 07:04	21°II 01'55	0°17'55	opposition	4023 Sep 21 21:11	0°Y 09'34	-6°-13'-9	
	4018 Jun 22 14:50	0°S		greatest brilliancy	4023 Sep 22 08:15	0°Y 02'14	-2.9m	
max. Earth dist.	4018 Jul 23 05:28	21°S 42'24	2.49959 AU		4023 Sep 22 11:38	30°R K		
	4018 Aug 04 05:27	0°Q		min. Earth dist.	4023 Sep 22 21:28	29°K 53'28	0.37184 AU	
morning rise	4018 Aug 08 16:11	3°Q 02'34		direct	4023 Oct 21 19:54	25°K 09'31		
	4018 Sep 18 02:31	0°M			4023 Nov 18 13:03	0°Y		
	4018 Nov 04 09:44	0°A		asc. node	4024 Jan 03 22:17	22°Y 06'51		
	4018 Dec 25 00:02	0°M			4024 Jan 17 05:19	0°B		
	4019 Feb 22 08:15	0°J			4024 Mar 04 11:02	0°II		
retrograde	4019 Apr 17 12:31	13°J 26'01			4024 Apr 19 09:55	0°S		
opposition	4019 May 25 04:22	5°J 06'55	0°00'16		4024 Jun 04 19:31	0°Q		
greatest brilliancy	4020 Apr 29 13:25	5°II 37'39	2.4m		4024 Jul 21 22:43	0°M		
desc. node	4019 May 25 06:56	5°J 04'30		evening set	4024 Sep 01 09:36	26°M 11'27		
min. Earth dist.	4019 May 31 15:16	2°J 40'48	0.59561 AU		4024 Sep 07 10:16	0°A		
	4019 Jun 08 05:15	30°R M		max. Earth dist.	4024 Oct 09 04:09	20°A 08'32	2.67303 AU	
direct	4019 Jul 05 01:05	25°M 19'16						
	4019 Aug 02 10:07	0°J		conjunction	4024 Oct 16 18:37	24°A 59'41	0°44'31	
	4019 Oct 02 22:32	0°C		minimum elong	4024 Oct 16 19:41	25°A 01'22	0°44'30	
	4019 Nov 16 16:49	0°≈			4024 Oct 24 14:17	0°M		
	4019 Dec 27 02:30	0°K		morning rise	4024 Nov 29 21:35	23°M 28'36		

	4024 Dec 09 20:41	0°♊		min. Earth dist.	4030 Feb 27 23:44	13°♍05'15	0.65836 AU
desc. node	4025 Jan 14 03:29	23°♊25'50		opposition	4030 Mar 02 14:18	12°♍02'44	4°33'57
	4025 Jan 23 21:31	0°♊		greatest brilliancy	4030 Mar 02 00:30	12°♍16'32	-1.3m
	4025 Mar 08 15:43	0°♋		direct	4030 Apr 11 06:00	2°♍38'58	
	4025 Apr 20 06:55	0°♌			4030 Jul 04 10:40	0°♌	
	4025 Jun 01 05:42	0°♍			4030 Aug 27 04:40	0°♍	
	4025 Jul 13 16:00	0°♎		desc. node	4030 Sep 06 00:25	5°♍56'57	
	4025 Aug 29 06:52	0°♏			4030 Oct 13 21:27	0°♊	
retrograde	4025 Oct 30 22:50	21°♏44'44			4030 Nov 26 21:12	0°♊	
asc. node	4025 Nov 20 20:58	18°♏36'25		evening set	4031 Jan 01 20:13	26°♊04'12	
min. Earth dist.	4025 Nov 27 07:27	16°♏37'30	0.44353 AU		4031 Jan 07 02:45	0°♋	
opposition	4025 Dec 05 12:12	13°♏49'55	0°53'13	max. Earth dist.	4031 Jan 24 20:42	13°♋24'17	2.39363 AU
greatest brilliancy	4025 Dec 05 01:02	13°♏59'29	-2.5m		4031 Feb 15 09:51	0°♌	
direct	4026 Jan 06 15:45	7°♏24'04					
	4026 Mar 18 15:09	0°♐		conjunction	4031 Mar 02 20:21	12°♌03'11	-1°-4'-21
	4026 May 12 03:20	0°♑		minimum elong	4031 Mar 02 21:10	12°♌04'47	1°04'21
	4026 Jul 01 16:01	0°♒			4031 Mar 25 15:17	0°♍	
	4026 Aug 19 17:40	0°♓			4031 May 02 16:27	0°♎	
	4026 Oct 06 10:37	0°♔		morning rise	4031 May 11 22:58	7°♎15'10	
evening set	4026 Oct 08 00:11	1°♔00'05			4031 Jun 10 10:37	0°♏	
max. Earth dist.	4026 Nov 02 00:28	17°♔10'46	2.62310 AU	asc. node	4031 Jul 13 17:18	24°♏52'45	
	4026 Nov 21 10:59	0°♊			4031 Jul 20 17:50	0°♐	
					4031 Sep 01 08:43	0°♑	
conjunction	4026 Nov 22 16:46	0°♊49'35	0°05'17		4031 Oct 17 07:12	0°♒	
minimum elong	4026 Nov 22 16:57	0°♊49'54	0°05'16		4031 Dec 08 06:31	0°♓	
behind sun begin	4026 Nov 21 22:31	0°♊19'12		retrograde	4032 Feb 24 14:29	25°♓28'44	
behind sun end	4026 Nov 23 11:24	1°♊20'37		opposition	4032 Apr 04 15:44	15°♓56'16	3°26'30
desc. node	4026 Dec 02 02:04	7°♊06'39		greatest brilliancy	4032 Apr 04 20:25	15°♓51'38	-1.2m
	4027 Jan 04 13:34	0°♋		min. Earth dist.	4032 Apr 05 22:27	15°♓25'51	0.67779 AU
morning rise	4027 Jan 08 06:10	2°♋34'15		direct	4032 May 15 22:27	6°♓00'12	
	4027 Feb 15 19:37	0°♌		desc. node	4032 Jul 23 23:13	26°♓22'57	
	4027 Mar 28 11:57	0°♍			4032 Jul 31 05:51	0°♔	
	4027 May 07 02:36	0°♎			4032 Sep 21 14:55	0°♊	
	4027 Jun 15 09:24	0°♏			4032 Nov 05 21:11	0°♋	
	4027 Jul 25 11:27	0°♐			4032 Dec 17 09:11	0°♌	
	4027 Sep 06 07:00	0°♑			4033 Jan 25 14:38	0°♍	
asc. node	4027 Oct 08 20:07	20°♑06'49			4033 Mar 04 17:10	0°♎	
	4027 Oct 27 17:06	0°♒		evening set	4033 Mar 07 04:51	1°♎58'07	
retrograde	4027 Dec 16 11:04	13°♒45'09			4033 Apr 11 17:20	0°♏	
min. Earth dist.	4028 Jan 18 07:13	6°♒30'17	0.57429 AU				
greatest brilliancy	4028 Jan 23 08:15	4°♒32'07	-1.7m	conjunction	4033 May 15 04:27	25°♏55'04	0°-10'-31
opposition	4028 Jan 24 16:43	4°♒00'22	4°15'31	minimum elong	4033 May 15 05:26	25°♏56'57	0°10'31
	4028 Feb 04 15:41	30°♒39'55		behind sun begin	4033 May 14 07:27	25°♏14'58	
direct	4028 Mar 01 08:02	25°♓39'55		behind sun end	4033 May 16 03:25	26°♏38'53	
	4028 Mar 29 10:59	0°♑			4033 May 20 13:06	0°♏	
	4028 Jun 06 04:10	0°♒		asc. node	4033 May 30 17:11	7°♏40'56	
	4028 Jul 29 11:06	0°♓			4033 Jun 29 22:35	0°♐	
	4028 Sep 16 16:35	0°♔		max. Earth dist.	4033 Jul 04 23:53	3°♓39'11	2.44558 AU
desc. node	4028 Oct 19 00:56	20°♔44'58		morning rise	4033 Jul 19 02:51	13°♓44'27	
	4028 Nov 02 01:05	0°♊			4033 Aug 11 10:25	0°♑	
evening set	4028 Nov 15 00:01	8°♊42'20			4033 Sep 25 09:03	0°♒	
max. Earth dist.	4028 Nov 30 18:55	19°♊30'42	2.52294 AU		4033 Nov 12 05:50	0°♓	
	4028 Dec 15 19:31	0°♋			4034 Jan 04 00:57	0°♔	
				retrograde	4034 Apr 01 08:47	29°♔19'03	
conjunction	4029 Jan 03 15:51	13°♋26'22	0°-41'-21	opposition	4034 May 09 23:24	20°♔33'34	1°12'29
minimum elong	4029 Jan 03 14:19	13°♋23'35	0°41'21	greatest brilliancy	4034 May 10 07:26	20°♔25'50	-1.4m
	4029 Jan 26 07:45	0°♌		min. Earth dist.	4034 May 15 00:57	18°♔36'32	0.63116 AU
morning rise	4029 Feb 27 13:02	24°♌13'47		desc. node	4034 Jun 10 21:27	11°♔09'11	
	4029 Mar 07 02:01	0°♍		direct	4034 Jun 20 08:19	10°♔34'30	
	4029 Apr 14 18:29	0°♎			4034 Aug 23 20:54	0°♊	
	4029 May 23 04:09	0°♏			4034 Oct 13 19:46	0°♋	
	4029 Jul 01 04:54	0°♐			4034 Nov 25 21:49	0°♌	
	4029 Aug 10 21:55	0°♑			4035 Jan 04 17:07	0°♍	
asc. node	4029 Aug 25 19:29	10°♑30'45			4035 Feb 12 03:14	0°♎	
	4029 Sep 23 17:41	0°♒			4035 Mar 22 10:59	0°♏	
	4029 Nov 13 06:53	0°♓		asc. node	4035 Apr 17 16:59	20°♏11'31	
retrograde	4030 Jan 21 06:44	21°♓59'14			4035 Apr 30 16:15	0°♐	

evening set	4035 May 16 16:57	11° Π 56'18			4040 Feb 01 13:26	0° Ξ		
	4035 Jun 10 12:22	0° Ξ			4040 Mar 17 08:33	0° \approx		
					4040 Apr 30 12:19	0° H		
conjunction	4035 Jul 14 17:44	24° Ξ 04'43	0°50'07		4040 Jun 13 18:56	0° Υ		
minimum elong	4035 Jul 14 15:50	24° Ξ 01'27	0°50'05		4040 Jul 31 00:21	0° B		
	4035 Jul 23 08:38	0° Ω		retrograde	4040 Oct 07 08:50	24° B 37'46		
max. Earth dist.	4035 Aug 13 10:35	14° Ω 14'57	2.57237 AU	min. Earth dist.	4040 Nov 02 16:55	20° B 07'42	0.39711 AU	
morning rise	4035 Sep 05 07:10	29° Ω 22'03		opposition	4040 Nov 09 06:36	18° B 09'08	-1°-54'-18	
	4035 Sep 06 06:22	0° M		greatest brilliancy	4040 Nov 08 16:22	18° B 19'53	-2.8m	
	4035 Oct 23 01:24	0° A		asc. node	4040 Dec 07 14:14	12° B 41'39		
	4035 Dec 10 18:17	0° M		direct	4040 Dec 09 14:24	12° B 40'03		
	4036 Jan 31 12:55	0° A			4041 Feb 06 12:54	0° Π		
	4036 Apr 03 05:06	0° Ξ			4041 Apr 02 01:19	0° Ξ		
desc. node	4036 Apr 27 20:20	7° Ξ 07'27			4041 May 21 18:04	0° Ω		
retrograde	4036 May 15 22:11	8° Ξ 58'20			4041 Jul 09 12:42	0° M		
opposition	4036 Jun 20 13:22	1° Ξ 34'21	-2°-22'-17		4041 Aug 26 19:44	0° A		
greatest brilliancy	4036 Jun 21 13:41	1° Ξ 12'37	-1.9m	evening set	4041 Sep 23 17:42	17° A 34'08		
	4036 Jun 24 22:41	30° R A			4041 Oct 13 06:00	0° M		
min. Earth dist.	4036 Jun 28 17:47	28° A 39'22	0.52391 AU	max. Earth dist.	4041 Oct 23 10:00	6° M 32'09	2.64897 AU	
direct	4036 Jul 29 16:58	22° A 31'31						
	4036 Sep 03 02:25	0° Ξ		conjunction	4041 Nov 07 22:36	16° M 36'24	0°22'05	
	4036 Oct 28 11:58	0° \approx		minimum elong	4041 Nov 07 23:17	16° M 37'31	0°22'04	
	4036 Dec 10 09:13	0° H			4041 Nov 28 07:29	0° A		
	4037 Jan 19 07:22	0° Υ		desc. node	4041 Dec 18 17:49	13° A 39'44		
	4037 Feb 27 17:29	0° B		morning rise	4041 Dec 23 01:34	16° A 34'59		
asc. node	4037 Mar 04 15:06	3° B 42'11			4042 Jan 11 16:59	0° Ξ		
	4037 Apr 08 22:39	0° Π			4042 Feb 23 10:24	0° \approx		
	4037 May 20 17:16	0° Ξ			4042 Apr 05 16:38	0° H		
	4037 Jul 03 08:33	0° Ω			4042 May 15 22:21	0° Υ		
evening set	4037 Jul 08 03:06	3° Ω 12'22			4042 Jun 24 22:05	0° B		
	4037 Aug 17 17:49	0° M			4042 Aug 05 01:43	0° Π		
					4042 Sep 19 16:24	0° Ξ		
conjunction	4037 Aug 27 06:08	6° M 10'18	1°08'11	asc. node	4042 Oct 25 12:25	18° Ξ 12'50		
minimum elong	4037 Aug 27 06:06	6° M 10'15	1°08'11	retrograde	4042 Nov 30 01:33	26° Ξ 04'00		
max. Earth dist.	4037 Sep 07 23:36	13° M 44'04	2.65221 AU	min. Earth dist.	4042 Dec 30 16:39	19° Ξ 37'48	0.52617 AU	
	4037 Oct 03 09:58	0° A		greatest brilliancy	4043 Jan 05 22:01	17° Ξ 16'33	-2.0m	
morning rise	4037 Oct 12 14:23	5° A 50'10		opposition	4043 Jan 07 07:34	16° Ξ 44'42	3°28'45	
	4037 Nov 19 20:20	0° M		direct	4043 Feb 11 08:24	9° Ξ 01'49		
	4038 Jan 06 18:28	0° A			4043 Apr 21 21:10	0° Ω		
	4038 Feb 24 12:35	0° Ξ			4043 Jun 17 06:16	0° M		
desc. node	4038 Mar 15 19:25	11° Ξ 33'50			4043 Aug 07 08:09	0° A		
	4038 Apr 16 18:46	0° \approx			4043 Sep 24 19:48	0° M		
	4038 Jun 20 02:44	0° H		evening set	4043 Oct 31 04:14	23° M 29'32		
retrograde	4038 Jul 21 05:51	5° H 23'13		desc. node	4043 Nov 05 16:26	27° M 08'03		
opposition	4038 Aug 21 03:13	0° H 05'37	-6°-30'-45		4043 Nov 09 23:53	0° A		
	4038 Aug 21 11:06	30° R \approx		max. Earth dist.	4043 Nov 18 23:24	6° A 01'05	2.56784 AU	
greatest brilliancy	4038 Aug 22 21:08	29° \approx 35'41	-2.7m					
min. Earth dist.	4038 Aug 26 23:58	28° \approx 25'47	0.39626 AU	conjunction	4043 Dec 17 16:41	25° A 41'24	0°-23'-29	
direct	4038 Sep 22 14:00	24° \approx 04'29		minimum elong	4043 Dec 17 15:47	25° A 39'50	0°23'30	
	4038 Oct 23 00:48	0° H			4043 Dec 23 20:39	0° Ξ		
	4038 Dec 18 07:01	0° Υ			4044 Feb 03 14:53	0° \approx		
asc. node	4039 Jan 20 13:48	22° Υ 09'20		morning rise	4044 Feb 06 07:01	1° \approx 57'59		
	4039 Feb 01 00:01	0° B			4044 Mar 14 16:22	0° H		
	4039 Mar 16 08:59	0° Π			4044 Apr 22 15:37	0° Υ		
	4039 Apr 29 09:16	0° Ξ			4044 May 31 07:06	0° B		
	4039 Jun 13 15:26	0° Ω			4044 Jul 09 13:34	0° Π		
	4039 Jul 30 02:17	0° M			4044 Aug 19 16:45	0° Ξ		
evening set	4039 Aug 18 17:47	12° M 31'57		asc. node	4044 Sep 11 11:07	15° Ξ 37'21		
	4039 Sep 15 05:31	0° A			4044 Oct 03 18:49	0° Ω		
max. Earth dist.	4039 Oct 01 04:49	10° A 08'39	2.67797 AU		4044 Nov 30 07:15	0° M		
				retrograde	4045 Jan 07 13:56	8° M 14'06		
conjunction	4039 Oct 03 18:55	11° A 47'21	0°55'25		4045 Feb 12 07:37	30° R Ω		
minimum elong	4039 Oct 03 19:57	11° A 48'59	0°55'25	min. Earth dist.	4045 Feb 12 13:01	29° Ω 54'39	0.63290 AU	
	4039 Nov 01 08:35	0° M		opposition	4045 Feb 16 15:57	28° Ω 16'05	4°39'55	
morning rise	4039 Nov 16 22:23	9° M 59'03		greatest brilliancy	4045 Feb 15 17:52	28° Ω 38'07	-1.4m	
	4039 Dec 17 21:31	0° A		direct	4045 Mar 27 07:29	19° Ω 12'31		
desc. node	4040 Jan 31 18:37	29° A 28'48			4045 May 13 22:52	0° M		

	4045 Jul 14 20:15	0°♄			4050 Jun 17 20:07	0°♄	
	4045 Sep 04 04:31	0°♌					
desc. node	4045 Sep 22 15:03	11°♌29'31		conjunction	4050 Jun 23 15:10	4°♄09'54	0°31'41
	4045 Oct 21 05:14	0°♊		minimum elong	4050 Jun 23 13:14	4°♄06'26	0°31'40
	4045 Dec 04 01:44	0°♈			4050 Jul 30 11:39	0°♌	
evening set	4045 Dec 12 13:09	6°♈01'12		max. Earth dist.	4050 Jul 31 14:34	0°♌46'09	2.52741 AU
max. Earth dist.	4045 Dec 27 04:10	16°♈34'32	2.44437 AU	morning rise	4050 Aug 19 05:37	13°♌23'45	
	4046 Jan 14 09:24	0°♍			4050 Sep 13 07:35	0°♎	
					4050 Oct 30 08:24	0°♌	
conjunction	4046 Feb 05 12:50	16°♍41'54	-1°-2'-8		4050 Dec 19 01:20	0°♌	
minimum elong	4046 Feb 05 11:34	16°♍39'30	1°02'09		4051 Feb 12 10:11	0°♊	
	4046 Feb 22 20:18	0°♋		retrograde	4051 Apr 27 12:29	22°♊31'50	
greatest brilliancy	4046 Mar 27 19:02	25°♋43'49	1.2m	desc. node	4051 May 15 10:49	20°♊31'02	
	4046 Apr 02 05:18	0°♎		opposition	4051 Jun 03 13:20	14°♊30'14	0°-47'-57
morning rise	4046 Apr 10 21:46	6°♎50'21		greatest brilliancy	4051 Jun 03 20:45	14°♊23'21	-1.7m
	4046 May 10 08:49	0°♏		min. Earth dist.	4051 Jun 10 17:15	11°♊50'41	0.57218 AU
	4046 Jun 18 04:00	0°♐		direct	4051 Jul 13 23:24	4°♊54'04	
	4046 Jul 28 12:21	0°♑			4051 Sep 24 14:58	0°♈	
asc. node	4046 Jul 30 11:20	1°♑24'57			4051 Nov 10 08:25	0°♍	
	4046 Sep 09 08:43	0°♌			4051 Dec 21 09:23	0°♋	
	4046 Oct 26 05:37	0°♎			4052 Jan 29 11:00	0°♎	
	4046 Dec 21 22:53	0°♌			4052 Mar 08 06:48	0°♏	
retrograde	4047 Feb 11 06:02	12°♌52'25		asc. node	4052 Mar 21 08:08	9°♏58'27	
opposition	4047 Mar 23 13:11	3°♌07'40	4°00'34		4052 Apr 16 23:29	0°♐	
greatest brilliancy	4047 Mar 23 11:37	3°♌09'13	-1.2m		4052 May 28 06:44	0°♑	
min. Earth dist.	4047 Mar 23 07:35	3°♌13'14	0.67806 AU	evening set	4052 Jun 19 05:56	15°♑24'41	
	4047 Mar 31 13:37	30°♎♎			4052 Jul 10 12:37	0°♌	
direct	4047 May 03 08:37	23°♎21'02					
	4047 Jun 08 14:09	0°♌		conjunction	4052 Aug 11 03:59	21°♌09'13	1°05'35
desc. node	4047 Aug 10 14:02	29°♌05'38		minimum elong	4052 Aug 11 03:12	21°♌07'56	1°05'35
	4047 Aug 12 05:08	0°♌			4052 Aug 24 15:37	0°♎	
	4047 Oct 01 00:20	0°♊		max. Earth dist.	4052 Aug 29 10:32	3°♎07'12	2.62737 AU
	4047 Nov 14 14:36	0°♈		morning rise	4052 Sep 28 08:11	22°♎23'26	
	4047 Dec 25 22:42	0°♍			4052 Oct 10 06:53	0°♌	
	4048 Feb 03 03:58	0°♋			4052 Nov 27 01:15	0°♌	
evening set	4048 Feb 08 09:53	4°♋05'41			4053 Jan 14 23:32	0°♊	
	4048 Mar 12 06:57	0°♎			4053 Mar 07 07:31	0°♈	
				desc. node	4053 Apr 01 10:41	13°♈33'02	
conjunction	4048 Apr 16 01:34	27°♎28'18	0°-39'-30		4053 May 06 23:01	0°♍	
minimum elong	4048 Apr 16 04:53	27°♎34'51	0°39'29	retrograde	4053 Jun 22 02:00	10°♍29'19	
	4048 Apr 19 06:50	0°♏		opposition	4053 Jul 24 19:35	4°♍20'38	-5°-9'-44
	4048 May 28 01:05	0°♐		greatest brilliancy	4053 Jul 26 19:21	3°♍42'20	-2.4m
max. Earth dist.	4048 Jun 03 16:32	5°♐02'24	2.39231 AU	min. Earth dist.	4053 Aug 01 21:59	1°♍45'46	0.44191 AU
asc. node	4048 Jun 16 10:23	14°♐36'18			4053 Aug 07 23:32	30°♎♈	
morning rise	4048 Jun 25 01:21	21°♐00'03		direct	4053 Aug 29 11:49	26°♈53'45	
	4048 Jul 07 08:19	0°♑			4053 Sep 20 00:53	0°♍	
	4048 Aug 18 19:11	0°♌			4053 Nov 19 06:01	0°♋	
	4048 Oct 02 22:19	0°♎			4054 Jan 01 22:22	0°♎	
	4048 Nov 20 17:19	0°♌		asc. node	4054 Feb 06 06:37	25°♎36'23	
	4049 Jan 16 17:08	0°♌			4054 Feb 12 07:34	0°♏	
retrograde	4049 Mar 17 10:38	16°♌00'27			4054 Mar 25 21:48	0°♐	
opposition	4049 Apr 25 18:39	6°♌53'31	2°12'38		4054 May 07 17:55	0°♑	
greatest brilliancy	4049 Apr 26 04:17	6°♌44'06	-1.3m		4054 Jun 21 04:45	0°♌	
min. Earth dist.	4049 Apr 29 09:12	5°♌29'01	0.65713 AU	evening set	4054 Aug 03 10:06	28°♌15'16	
	4049 May 15 04:18	30°♎♌			4054 Aug 06 03:02	0°♎	
direct	4049 Jun 06 08:03	26°♌51'06					
desc. node	4049 Jun 27 12:31	29°♌24'43		conjunction	4054 Sep 19 14:37	28°♎28'21	1°03'14
	4049 Jun 29 23:32	0°♌		minimum elong	4054 Sep 19 15:24	28°♎29'35	1°03'15
	4049 Sep 05 14:02	0°♊		max. Earth dist.	4054 Sep 22 06:58	0°♌10'45	2.67453 AU
	4049 Oct 23 04:00	0°♈			4054 Sep 22 00:12	0°♌	
	4049 Dec 04 09:07	0°♍		morning rise	4054 Nov 03 05:32	26°♌50'50	
	4050 Jan 12 20:27	0°♋			4054 Nov 08 04:24	0°♌	
	4050 Feb 20 01:55	0°♎			4054 Dec 25 03:02	0°♊	
	4050 Mar 30 05:19	0°♏			4055 Feb 09 15:59	0°♈	
evening set	4050 Apr 20 20:57	16°♏46'27		desc. node	4055 Feb 17 10:03	5°♈01'02	
asc. node	4050 May 04 08:43	27°♏04'21			4055 Mar 28 00:07	0°♍	
	4050 May 08 05:31	0°♐			4055 May 13 20:14	0°♋	

	4055 Jul 02 22:18	0°♄			4060 Sep 11 17:47	0°♌	
retrograde	4055 Sep 09 19:41	23°♄33'39		desc. node	4060 Oct 09 05:43	17°♌28'23	
min. Earth dist.	4055 Oct 08 04:02	18°♄56'35	0.37169 AU		4060 Oct 28 08:04	0°♌	
opposition	4055 Oct 10 09:54	18°♄20'18	-5°00'-33	evening set	4060 Nov 24 12:36	18°♌24'21	
greatest brilliancy	4055 Oct 10 02:22	18°♄25'22	-2.9m	max. Earth dist.	4060 Dec 09 01:50	28°♌32'18	2.49598 AU
direct	4055 Nov 08 18:43	13°♄26'28			4060 Dec 11 03:40	0°♌	
asc. node	4055 Dec 25 05:16	25°♄27'10					
	4056 Jan 03 19:09	0°♌		conjunction	4061 Jan 14 18:08	24°♌56'13	0°-50'-28
	4056 Feb 25 09:04	0°♌		minimum elong	4061 Jan 14 16:25	24°♌53'03	0°50'28
	4056 Apr 13 02:55	0°♌			4061 Jan 21 14:38	0°♌	
	4056 May 30 09:50	0°♌			4061 Mar 02 06:22	0°♌	
	4056 Jul 17 00:35	0°♌		morning rise	4061 Mar 13 16:14	8°♌49'02	
	4056 Sep 02 18:03	0°♌			4061 Apr 09 19:52	0°♄	
evening set	4056 Sep 09 14:20	4°♌19'01			4061 May 18 02:51	0°♌	
max. Earth dist.	4056 Oct 14 09:13	26°♌24'13	2.66681 AU		4061 Jun 26 00:41	0°♌	
	4056 Oct 20 00:01	0°♌			4061 Aug 05 12:48	0°♌	
				asc. node	4061 Aug 16 02:59	7°♌33'31	
conjunction	4056 Oct 24 18:33	3°♌03'48	0°36'55		4061 Sep 17 20:26	0°♌	
minimum elong	4056 Oct 24 19:31	3°♌05'22	0°36'55		4061 Nov 05 11:19	0°♌	
	4056 Dec 05 04:29	0°♌			4062 Jan 26 16:23	0°♌	
morning rise	4056 Dec 08 02:10	1°♌54'54		retrograde	4062 Jan 28 23:28	0°♌02'02	
desc. node	4057 Jan 04 08:15	20°♌05'12			4062 Jan 31 06:12	30°♌	
	4057 Jan 18 23:38	0°♌		min. Earth dist.	4062 Mar 08 14:12	20°♌50'34	0.66816 AU
	4057 Mar 03 08:19	0°♌		opposition	4062 Mar 10 08:05	20°♌08'44	4°24'50
	4057 Apr 14 10:10	0°♌		greatest brilliancy	4062 Mar 09 22:57	20°♌17'52	-1.3m
	4057 May 25 14:54	0°♄		direct	4062 Apr 19 10:54	10°♌35'40	
	4057 Jul 05 20:29	0°♌			4062 Jun 26 07:04	0°♌	
	4057 Aug 18 08:24	0°♌			4062 Aug 21 12:03	0°♌	
	4057 Oct 13 20:03	0°♌		desc. node	4062 Aug 27 04:35	3°♌21'45	
retrograde	4057 Nov 11 14:48	5°♌29'23			4062 Oct 08 20:33	0°♌	
asc. node	4057 Nov 11 05:28	5°♌29'19			4062 Nov 22 01:36	0°♌	
	4057 Dec 09 19:24	30°♌			4063 Jan 02 08:36	0°♌	
min. Earth dist.	4057 Dec 10 00:42	29°♌55'25	0.47263 AU	evening set	4063 Jan 14 12:14	9°♌08'58	
greatest brilliancy	4057 Dec 17 07:48	27°♌19'02	-2.3m		4063 Feb 10 15:25	0°♌	
opposition	4057 Dec 18 08:05	26°♌57'17	2°04'17	max. Earth dist.	4063 Feb 24 12:11	10°♌49'53	2.37290 AU
direct	4058 Jan 20 12:04	20°♌01'51					
	4058 Mar 05 07:16	0°♌		conjunction	4063 Mar 18 12:22	28°♌10'13	0°-59'-31
	4058 May 05 02:18	0°♌		minimum elong	4063 Mar 18 14:43	28°♌14'52	0°59'31
	4058 Jun 26 02:56	0°♌			4063 Mar 20 19:55	0°♄	
	4058 Aug 14 19:10	0°♌			4063 Apr 27 20:13	0°♌	
	4058 Oct 01 18:24	0°♌		morning rise	4063 May 29 01:52	24°♌16'17	
evening set	4058 Oct 16 07:10	9°♌19'22			4063 Jun 05 13:36	0°♌	
max. Earth dist.	4058 Nov 07 21:45	24°♌04'44	2.60546 AU	asc. node	4063 Jul 04 02:28	21°♌25'08	
	4058 Nov 16 20:11	0°♌			4063 Jul 15 19:29	0°♌	
desc. node	4058 Nov 22 06:57	3°♌38'15			4063 Aug 27 07:11	0°♌	
					4063 Oct 11 19:20	0°♌	
conjunction	4058 Dec 01 11:07	9°♌48'34	0°-5'-10		4063 Dec 01 04:15	0°♌	
minimum elong	4058 Dec 01 10:54	9°♌48'14	0°05'12		4064 Feb 08 09:27	0°♌	
behind sun begin	4058 Nov 30 16:06	9°♌16'28		retrograde	4064 Mar 03 09:43	3°♌12'02	
behind sun end	4058 Dec 02 05:43	10°♌20'01			4064 Mar 25 18:17	30°♌	
	4058 Dec 30 20:52	0°♌		opposition	4064 Apr 12 06:12	23°♌47'45	3°02'07
morning rise	4059 Jan 18 03:52	12°♌52'47		greatest brilliancy	4064 Apr 12 13:27	23°♌40'36	-1.2m
	4059 Feb 10 22:45	0°♌		min. Earth dist.	4064 Apr 14 09:16	22°♌57'25	0.67312 AU
	4059 Mar 23 09:41	0°♌		direct	4064 May 23 16:57	13°♌48'02	
	4059 May 01 18:20	0°♄		desc. node	4064 Jul 14 03:35	26°♌21'20	
	4059 Jun 09 18:46	0°♌			4064 Jul 22 11:03	0°♌	
	4059 Jul 19 11:34	0°♌			4064 Sep 15 16:32	0°♌	
	4059 Aug 30 10:27	0°♌			4064 Oct 31 15:08	0°♌	
asc. node	4059 Sep 29 04:53	19°♌24'09			4064 Dec 12 08:47	0°♌	
	4059 Oct 17 05:55	0°♌			4065 Jan 20 16:21	0°♌	
retrograde	4059 Dec 25 03:56	23°♌21'29			4065 Feb 27 19:47	0°♄	
min. Earth dist.	4060 Jan 28 03:57	15°♌42'06	0.59752 AU	greatest brilliancy	4065 Mar 13 04:01	10°♄33'06	1.2m
opposition	4060 Feb 02 18:29	13°♌29'24	4°30'27	evening set	4065 Mar 23 12:41	18°♄43'56	
greatest brilliancy	4060 Feb 01 13:02	13°♌58'31	-1.6m		4065 Apr 06 20:49	0°♌	
direct	4060 Mar 11 04:28	4°♌51'48			4065 May 15 17:34	0°♌	
	4060 May 29 11:29	0°♌		asc. node	4065 May 21 01:53	4°♌02'45	
	4060 Jul 23 20:26	0°♌					

conjunction	4065 May 30 08:50	11°II01'10	0°06'16		4070 May 31 07:58	0°X	
minimum elong	4065 May 30 08:16	11°II00'09	0°06'15	retrograde	4070 Aug 08 11:34	21°X59'57	
behind sun begin	4065 May 29 06:39	10°II12'18		opposition	4070 Sep 07 13:06	17°X00'34	-6°-37'-42
behind sun end	4065 May 31 09:54	11°II47'56		greatest brilliancy	4070 Sep 08 16:30	16°X42'05	-2.8m
	4065 Jun 25 03:52	0°S		min. Earth dist.	4070 Sep 11 00:49	16°X04'09	0.37921 AU
max. Earth dist.	4065 Jul 15 22:35	14°S51'57	2.47588 AU	direct	4070 Oct 08 09:58	11°X39'51	
morning rise	4065 Jul 31 02:51	25°S29'08			4070 Dec 05 05:52	0°Y	
	4065 Aug 06 15:49	0°Q		asc. node	4071 Jan 10 23:02	21°Y47'45	
	4065 Sep 20 11:43	0°P			4071 Jan 23 16:23	0°X	
	4065 Nov 06 22:32	0°A			4071 Mar 09 18:41	0°II	
	4065 Dec 28 05:51	0°M			4071 Apr 23 16:49	0°S	
	4066 Mar 02 00:57	0°X			4071 Jun 08 12:14	0°Q	
retrograde	4066 Apr 10 08:48	7°X42'44			4071 Jul 25 06:55	0°P	
	4066 May 16 08:27	30°RM		evening set	4071 Aug 27 04:56	20°P53'01	
opposition	4066 May 18 12:00	29°M11'07	0°32'06		4071 Sep 10 14:20	0°A	
greatest brilliancy	4066 May 18 16:23	29°M06'57	-1.5m	max. Earth dist.	4071 Oct 06 09:52	16°A22'57	2.67636 AU
min. Earth dist.	4066 May 24 08:48	26°M56'59	0.61266 AU				
desc. node	4066 Jun 01 02:35	24°M10'11		conjunction	4071 Oct 11 19:31	19°A49'19	0°49'23
direct	4066 Jun 28 15:56	19°M16'55		minimum elong	4071 Oct 11 20:35	19°A51'01	0°49'23
	4066 Aug 12 19:55	0°X			4071 Oct 27 18:06	0°M	
	4066 Oct 07 05:11	0°S		morning rise	4071 Nov 24 21:10	18°M06'35	
	4066 Nov 20 04:56	0°≈			4071 Dec 13 03:40	0°X	
	4066 Dec 30 08:23	0°X		desc. node	4072 Jan 21 23:18	26°X18'50	
	4067 Feb 06 22:36	0°Y			4072 Jan 27 11:29	0°S	
	4067 Mar 17 09:28	0°X			4072 Mar 11 16:20	0°≈	
asc. node	4067 Apr 07 23:31	16°X35'09			4072 Apr 23 22:15	0°X	
	4067 Apr 25 17:42	0°II			4072 Jun 05 17:05	0°Y	
evening set	4067 May 30 00:54	25°II13'09			4072 Jul 19 13:40	0°X	
	4067 Jun 05 16:36	0°S			4072 Sep 09 04:43	0°II	
	4067 Jul 18 15:18	0°Q		retrograde	4072 Oct 21 04:41	10°II56'38	
conjunction	4067 Jul 25 14:55	4°Q44'55	0°57'35	min. Earth dist.	4072 Nov 16 21:58	6°II08'56	0.42111 AU
minimum elong	4067 Jul 25 13:22	4°Q42'18	0°57'34	opposition	4072 Nov 24 15:50	3°II38'12	0°-12'-31
max. Earth dist.	4067 Aug 19 22:32	21°Q41'22	2.59439 AU	greatest brilliancy	4072 Dec 15 17:18	28°X20'48	-2.7m
	4067 Sep 01 13:47	0°P		asc. node	4072 Nov 27 22:02	2°II35'30	
morning rise	4067 Sep 14 08:27	8°P18'52		direct	4072 Dec 07 02:20	30°RX	
	4067 Oct 18 06:15	0°A			4072 Dec 25 22:56	27°X38'02	
	4067 Dec 05 12:46	0°M			4073 Jan 14 12:24	0°II	
	4068 Jan 24 23:46	0°X			4073 Mar 24 16:02	0°S	
	4068 Mar 21 07:58	0°S			4073 May 15 15:19	0°Q	
desc. node	4068 Apr 18 01:16	11°S39'00			4073 Jul 04 07:24	0°P	
retrograde	4068 May 28 05:30	19°S43'56		evening set	4073 Aug 22 00:29	0°A	
opposition	4068 Jul 01 21:29	12°S44'21	-3°-21'-55		4073 Oct 01 21:20	25°A42'10	
greatest brilliancy	4068 Jul 03 08:18	12°S14'10	-2.1m	max. Earth dist.	4073 Oct 08 14:57	0°M	
min. Earth dist.	4068 Jul 10 08:48	9°S48'35	0.49519 AU		4073 Oct 28 23:53	13°M07'48	2.63571 AU
direct	4068 Aug 09 01:36	4°S08'15		conjunction	4073 Nov 16 07:01	25°M06'19	0°12'29
	4068 Oct 19 07:27	0°≈		minimum elong	4073 Nov 16 07:26	25°M06'59	0°12'29
	4068 Dec 03 10:16	0°X		behind sun begin	4073 Nov 15 19:14	24°M46'53	
	4069 Jan 13 04:05	0°Y		behind sun end	4073 Nov 16 19:38	25°M27'06	
asc. node	4069 Feb 22 22:54	0°X39'59			4073 Nov 23 16:34	0°X	
	4069 Feb 22 01:33	0°X		desc. node	4073 Dec 08 21:45	10°X10'10	
	4069 Apr 03 15:09	0°II		morning rise	4074 Jan 01 02:47	25°X57'47	
	4069 May 15 16:19	0°S			4074 Jan 06 23:13	0°S	
	4069 Jun 28 12:55	0°Q			4074 Feb 18 11:01	0°≈	
evening set	4069 Jul 18 02:44	13°Q01'12			4074 Mar 31 10:02	0°X	
	4069 Aug 13 01:35	0°P			4074 May 10 07:06	0°Y	
					4074 Jun 18 20:22	0°X	
conjunction	4069 Sep 04 23:56	14°P47'48	1°07'32		4074 Jul 29 06:39	0°II	
minimum elong	4069 Sep 05 00:15	14°P48'19	1°07'32		4074 Sep 10 21:20	0°S	
max. Earth dist.	4069 Sep 13 09:15	20°P10'19	2.66258 AU	asc. node	4074 Oct 15 20:38	20°S24'50	
	4069 Sep 28 18:46	0°A			4074 Nov 06 05:45	0°Q	
morning rise	4069 Oct 20 13:34	13°A50'25		retrograde	4074 Dec 09 15:14	6°Q52'48	
	4069 Nov 15 02:05	0°M		min. Earth dist.	4075 Jan 10 11:40	29°S59'13	0.55361 AU
	4070 Jan 01 14:07	0°X			4075 Jan 10 10:51	30°RX	
	4070 Feb 18 08:58	0°S		greatest brilliancy	4075 Jan 16 01:27	27°S50'16	-1.8m
desc. node	4070 Mar 06 00:33	9°S43'21		opposition	4075 Jan 17 11:21	27°S17'28	3°59'52
	4070 Apr 08 06:00	0°≈		direct	4075 Feb 22 10:33	19°S12'38	

	4075 Apr 10 05:54	0°♈			4080 May 23 04:45	0°♈	
	4075 Jun 10 19:19	0°♍		asc. node	4080 Jun 06 17:35	10°♈58'50	
	4075 Aug 02 01:54	0°♊		max. Earth dist.	4080 Jun 24 06:09	23°♈58'48	2.42102 AU
	4075 Sep 20 00:16	0°♋			4080 Jul 02 11:52	0°♉	
desc. node	4075 Oct 26 20:45	23°♋44'11		morning rise	4080 Jul 09 03:49	4°♉49'25	
	4075 Nov 05 07:51	0°♊			4080 Aug 13 21:43	0°♈	
evening set	4075 Nov 09 02:01	2°♊30'23			4080 Sep 27 20:16	0°♍	
max. Earth dist.	4075 Nov 26 00:37	13°♊57'24	2.54376 AU		4080 Nov 14 23:28	0°♊	
	4075 Dec 19 04:32	0°♋			4081 Jan 08 00:53	0°♋	
				retrograde	4081 Mar 25 19:54	24°♋01'13	
conjunction	4075 Dec 27 16:13	5°♋59'40	0°-33'-59	opposition	4081 May 03 19:18	15°♋05'39	1°38'50
minimum elong	4075 Dec 27 14:55	5°♋57'22	0°34'00	greatest brilliancy	4081 May 04 04:32	14°♋56'43	-1.4m
	4076 Jan 29 20:24	0°♌		min. Earth dist.	4081 May 08 05:49	13°♋22'27	0.64406 AU
morning rise	4076 Feb 18 10:43	14°♌35'19		direct	4081 Jun 14 07:28	5°♋04'08	
	4076 Mar 09 18:40	0°♈		desc. node	4081 Jun 17 17:05	5°♋08'27	
	4076 Apr 17 14:23	0°♍			4081 Aug 28 22:59	0°♊	
	4076 May 26 02:25	0°♉			4081 Oct 17 07:45	0°♋	
	4076 Jul 04 04:49	0°♈			4081 Nov 29 01:15	0°♌	
	4076 Aug 14 00:05	0°♉			4082 Jan 07 17:45	0°♈	
asc. node	4076 Sep 01 20:32	13°♉10'56			4082 Feb 15 01:47	0°♍	
	4076 Sep 27 04:12	0°♈			4082 Mar 25 07:02	0°♉	
	4076 Nov 18 12:03	0°♍		asc. node	4082 Apr 24 17:35	23°♉27'12	
retrograde	4077 Jan 15 12:07	16°♍40'47			4082 May 03 09:04	0°♈	
min. Earth dist.	4077 Feb 21 11:11	8°♍01'23	0.64815 AU	evening set	4082 May 05 19:24	1°♈49'50	
opposition	4077 Feb 24 17:36	6°♍43'03	4°38'13		4082 Jun 13 01:15	0°♉	
greatest brilliancy	4077 Feb 24 00:09	7°♍00'30	-1.3m				
	4077 Mar 16 02:36	30°♌♊		conjunction	4082 Jul 05 22:37	16°♉16'08	0°43'08
direct	4077 Apr 04 23:05	27°♌27'39		minimum elong	4082 Jul 05 20:34	16°♉12'33	0°43'07
	4077 Apr 26 08:25	0°♍			4082 Jul 25 17:55	0°♈	
	4077 Jul 08 05:05	0°♊		max. Earth dist.	4082 Aug 08 04:51	9°♈09'28	2.55304 AU
	4077 Aug 29 21:33	0°♋		morning rise	4082 Aug 29 04:15	23°♈10'24	
desc. node	4077 Sep 12 20:12	8°♋33'09			4082 Sep 08 13:16	0°♍	
	4077 Oct 16 08:30	0°♊			4082 Oct 25 09:21	0°♊	
	4077 Nov 29 08:12	0°♋			4082 Dec 13 10:10	0°♋	
evening set	4077 Dec 23 17:21	17°♋30'05			4083 Feb 04 08:57	0°♊	
	4078 Jan 09 15:44	0°♌			4083 Apr 18 19:53	0°♋	
max. Earth dist.	4078 Jan 10 00:18	0°♌15'58	2.41533 AU	desc. node	4083 May 05 15:56	2°♋03'36	
	4078 Feb 18 01:15	0°♈		retrograde	4083 May 08 04:45	2°♋05'55	
					4083 May 26 12:23	30°♌♊	
conjunction	4078 Feb 19 09:05	1°♈01'43	-1°-4'-55	opposition	4083 Jun 13 11:50	24°♊24'08	-1°-40'-26
minimum elong	4078 Feb 19 08:48	1°♈01'10	1°04'56	greatest brilliancy	4083 Jun 14 04:29	24°♊08'58	-1.8m
	4078 Mar 28 08:25	0°♍		min. Earth dist.	4083 Jun 21 06:38	21°♊34'09	0.54633 AU
morning rise	4078 Apr 28 06:44	24°♍23'09		direct	4083 Jul 23 07:04	15°♊03'52	
	4078 May 05 10:21	0°♉			4083 Sep 14 00:35	0°♋	
	4078 Jun 13 04:17	0°♈			4083 Nov 03 08:26	0°♌	
asc. node	4078 Jul 20 18:34	28°♈03'29			4083 Dec 15 07:51	0°♈	
	4078 Jul 23 10:36	0°♉			4084 Jan 23 19:53	0°♍	
	4078 Sep 04 01:51	0°♈			4084 Mar 02 22:27	0°♉	
	4078 Oct 20 06:03	0°♍		asc. node	4084 Mar 11 16:13	6°♉38'35	
	4078 Dec 12 13:21	0°♊			4084 Apr 11 20:49	0°♈	
retrograde	4079 Feb 18 20:57	20°♊35'15			4084 May 23 08:49	0°♉	
opposition	4079 Mar 31 01:38	10°♊56'58	3°41'43	evening set	4084 Jun 30 05:27	26°♉14'27	
greatest brilliancy	4079 Mar 31 03:47	10°♊54'50	-1.2m		4084 Jul 05 18:31	0°♈	
min. Earth dist.	4079 Mar 31 16:32	10°♊42'10	0.67924 AU		4084 Aug 19 23:41	0°♍	
direct	4079 May 11 04:03	1°♊04'31					
desc. node	4079 Jul 31 18:58	27°♊36'52		conjunction	4084 Aug 20 12:01	0°♍20'07	1°07'41
	4079 Aug 05 08:10	0°♋		minimum elong	4084 Aug 20 11:41	0°♍19'34	1°07'40
	4079 Sep 25 13:53	0°♊		max. Earth dist.	4084 Sep 04 03:12	9°♍49'44	2.64209 AU
	4079 Nov 09 14:38	0°♋			4084 Oct 05 14:34	0°♊	
	4079 Dec 21 02:05	0°♌		morning rise	4084 Oct 06 14:01	0°♊37'18	
	4080 Jan 29 08:13	0°♈			4084 Nov 22 03:35	0°♋	
evening set	4080 Feb 23 18:05	19°♈57'02			4085 Jan 09 10:52	0°♊	
	4080 Mar 07 10:59	0°♍			4085 Feb 28 03:33	0°♋	
	4080 Apr 14 10:32	0°♉		desc. node	4085 Mar 22 15:08	12°♋59'40	
					4085 Apr 23 02:27	0°♌	
conjunction	4080 May 02 17:25	14°♉16'06	0°-23'-28	retrograde	4085 Jul 07 20:34	24°♌21'58	
minimum elong	4080 May 02 19:39	14°♉20'25	0°23'28	opposition	4085 Aug 08 13:45	18°♌42'32	-6°-2'-18

greatest brilliancy	4085 Aug 10 13:34	18° \approx 06'27	-2.6m	conjunction	4090 Dec 10 12:37	19° \approx 07'02	0°-15'-44
min. Earth dist.	4085 Aug 15 18:19	16° \approx 33'27	0.41504 AU	minimum elong	4090 Dec 10 12:01	19° \approx 06'01	0°15'44
direct	4085 Sep 11 11:44	12° \approx 02'36		behind sun begin	4090 Dec 10 07:24	18° \approx 58'06	
	4085 Nov 06 20:39	0° X		behind sun end	4090 Dec 10 16:38	19° \approx 13'56	
	4085 Dec 24 17:27	0° Y			4090 Dec 26 05:37	0° Z	
asc. node	4086 Jan 27 14:34	23° Y 38'15		morning rise	4091 Jan 28 16:26	23° Z 49'14	
	4086 Feb 05 13:58	0° X			4091 Feb 06 04:03	0° \approx	
	4086 Mar 20 00:08	0° II			4091 Mar 18 10:17	0° X	
	4086 May 02 09:25	0° S			4091 Apr 26 13:44	0° Y	
	4086 Jun 16 05:21	0° Q			4091 Jun 04 08:32	0° X	
	4086 Aug 01 09:26	0° M			4091 Jul 13 18:12	0° II	
evening set	4086 Aug 12 06:48	6° M 58'53			4091 Aug 24 02:46	0° S	
	4086 Sep 17 09:30	0° Q		asc. node	4091 Sep 19 11:36	17° S 47'58	
					4091 Oct 08 23:15	0° Q	
conjunction	4086 Sep 27 18:37	6° Q 35'58	0°59'04		4091 Dec 13 14:56	0° M	
minimum elong	4086 Sep 27 19:34	6° Q 37'28	0°59'03	retrograde	4092 Jan 02 13:29	2° M 29'57	
max. Earth dist.	4086 Sep 27 11:06	6° Q 24'01	2.67746 AU		4092 Jan 21 11:06	30° R Q	
	4086 Nov 03 12:52	0° M		min. Earth dist.	4092 Feb 06 16:11	24° Q 27'19	0.61839 AU
morning rise	4086 Nov 11 01:56	4° M 49'08		greatest brilliancy	4092 Feb 10 09:13	22° Q 58'56	-1.5m
	4086 Dec 20 06:03	0° \approx		opposition	4092 Feb 11 10:44	22° Q 33'32	4°38'20
	4087 Feb 04 07:01	0° Z		direct	4092 Mar 20 13:39	13° Q 40'37	
desc. node	4087 Feb 07 14:06	2° Z 09'51			4092 May 20 09:02	0° M	
	4087 Mar 21 16:58	0° \approx			4092 Jul 17 23:23	0° Q	
	4087 May 05 20:39	0° X			4092 Sep 06 16:50	0° M	
	4087 Jun 20 21:51	0° Y		desc. node	4092 Sep 29 10:44	14° M 17'30	
	4087 Aug 12 18:36	0° X			4092 Oct 23 14:10	0° \approx	
retrograde	4087 Sep 26 13:05	11° X 47'31		evening set	4092 Dec 04 12:19	28° \approx 36'34	
min. Earth dist.	4087 Oct 23 06:39	7° X 21'51	0.38223 AU		4092 Dec 06 11:44	0° Z	
opposition	4087 Oct 28 05:39	5° X 57'32	-3°-18'-10	max. Earth dist.	4092 Dec 18 13:44	8° Z 35'13	2.46782 AU
greatest brilliancy	4087 Oct 27 13:48	6° X 08'48	-2.9m		4093 Jan 16 21:57	0° \approx	
direct	4087 Nov 26 21:36	0° X 49'30					
asc. node	4087 Dec 15 14:49	3° X 01'38		conjunction	4093 Jan 26 15:54	7° \approx 16'46	0°-57'-59
	4088 Feb 15 16:31	0° II		minimum elong	4093 Jan 26 14:17	7° \approx 13'45	0°58'00
	4088 Apr 06 08:45	0° S			4093 Feb 25 11:50	0° X	
	4088 May 24 19:50	0° Q		morning rise	4093 Mar 29 01:43	24° X 35'22	
	4088 Jul 12 00:40	0° M			4093 Apr 04 23:08	0° Y	
	4088 Aug 29 01:25	0° Q			4093 May 13 03:49	0° X	
evening set	4088 Sep 17 17:00	12° Q 22'25		greatest brilliancy	4093 May 14 08:17	0° X 55'39	1.2m
	4088 Oct 15 10:03	0° M			4093 Jun 20 23:18	0° II	
max. Earth dist.	4088 Oct 19 15:58	2° M 43'25	2.65793 AU		4093 Jul 31 07:37	0° S	
				asc. node	4093 Aug 06 11:51	4° S 27'05	
conjunction	4088 Nov 01 20:10	11° M 13'14	0°28'31		4093 Sep 12 06:01	0° Q	
minimum elong	4088 Nov 01 21:00	11° M 14'34	0°28'31		4093 Oct 29 14:28	0° M	
	4088 Nov 30 13:21	0° \approx			4093 Dec 28 22:11	0° Q	
morning rise	4088 Dec 16 12:51	10° \approx 37'25		retrograde	4094 Feb 05 14:52	7° Q 55'48	
desc. node	4088 Dec 25 13:03	16° \approx 40'26			4094 Mar 13 05:05	30° R M	
	4089 Jan 14 03:46	0° Z		opposition	4094 Mar 17 23:10	28° M 06'51	4°11'52
	4089 Feb 26 04:11	0° \approx		min. Earth dist.	4094 Mar 17 01:44	28° M 28'14	0.67494 AU
	4089 Apr 08 19:06	0° X		greatest brilliancy	4094 Mar 17 18:25	28° M 11'35	-1.2m
	4089 May 19 10:09	0° Y		direct	4094 Apr 27 11:38	18° M 25'39	
	4089 Jun 28 20:42	0° X			4094 Jun 16 05:39	0° Q	
	4089 Aug 09 17:56	0° II			4094 Aug 15 11:55	0° M	
	4089 Sep 26 17:44	0° S		desc. node	4094 Aug 17 09:25	1° M 05'01	
asc. node	4089 Nov 01 13:23	15° S 03'16			4094 Oct 03 16:58	0° \approx	
retrograde	4089 Nov 22 09:46	18° S 00'54			4094 Nov 17 04:47	0° Z	
min. Earth dist.	4089 Dec 22 00:11	11° S 58'16	0.50266 AU		4094 Dec 28 13:31	0° \approx	
greatest brilliancy	4089 Dec 28 17:46	9° S 28'56	-2.1m	evening set	4095 Jan 28 03:36	23° \approx 15'35	
opposition	4089 Dec 30 01:10	8° S 59'48	2°58'32		4095 Feb 05 20:17	0° X	
direct	4090 Feb 02 07:19	1° S 36'50			4095 Mar 16 00:12	0° Y	
	4090 Apr 27 03:56	0° Q					
	4090 Jun 20 08:33	0° M		conjunction	4095 Apr 03 23:52	15° Y 01'19	0°-49'-48
	4090 Aug 09 19:10	0° Q		minimum elong	4095 Apr 04 03:13	15° Y 07'56	0°49'47
	4090 Sep 27 01:56	0° M			4095 Apr 22 23:55	0° X	
evening set	4090 Oct 24 16:49	17° M 46'35		max. Earth dist.	4095 May 07 21:31	11° X 38'51	2.37364 AU
desc. node	4090 Nov 12 12:05	0° \approx 10'12			4095 May 31 17:01	0° II	
	4090 Nov 12 05:57	0° \approx		morning rise	4095 Jun 14 07:36	10° II 18'11	
max. Earth dist.	4090 Nov 14 02:40	1° \approx 14'29	2.58561 AU	asc. node	4095 Jun 24 11:07	17° II 53'13	

	4095 Jul 10 22:23	0°♄	min. Earth dist.	4100 Jul 23 18:55	22°♄10'24	0.46547 AU
	4095 Aug 22 07:44	0°♂	direct	4100 Aug 21 05:53	16°♄57'22	
	4095 Oct 06 12:17	0°♊		4100 Oct 07 10:52	0°♊	
	4095 Nov 24 18:21	0°♌		4100 Nov 26 09:33	0°♋	
	4096 Jan 23 14:53	0°♍				
retrograde	4096 Mar 11 08:29	10°♍59'14				
opposition	4096 Apr 19 22:59	1°♍44'10	2°34'16			
greatest brilliancy	4096 Apr 20 07:54	1°♍35'25	-1.3m			
min. Earth dist.	4096 Apr 22 22:07	0°♍34'24	0.66557 AU			
	4096 Apr 24 09:25	30°♊				
direct	4096 May 31 12:10	21°♌42'11				
desc. node	4096 Jul 04 08:08	27°♌44'45				
	4096 Jul 10 20:39	0°♍				
	4096 Sep 09 08:12	0°♊				
	4096 Oct 26 05:39	0°♄				
	4096 Dec 07 06:41	0°♊				
	4097 Jan 15 17:02	0°♋				
	4097 Feb 22 21:40	0°♎				
	4097 Apr 01 23:26	0°♏				
evening set	4097 Apr 08 16:47	5°♏14'54				
	4097 May 10 21:12	0°♌				
asc. node	4097 May 11 09:16	0°♌22'51				
conjunction	4097 Jun 13 12:12	25°♌01'12	0°21'36			
minimum elong	4097 Jun 13 10:38	24°♌58'21	0°21'34			
	4097 Jun 20 08:38	0°♄				
max. Earth dist.	4097 Jul 25 06:43	24°♄45'08	2.50505 AU			
	4097 Aug 01 21:02	0°♂				
morning rise	4097 Aug 11 06:51	6°♂25'59				
	4097 Sep 15 15:23	0°♊				
	4097 Nov 01 18:31	0°♌				
	4097 Dec 21 23:44	0°♍				
	4098 Feb 17 16:37	0°♊				
retrograde	4098 Apr 19 21:43	16°♊29'24				
desc. node	4098 May 22 06:31	10°♊08'34				
opposition	4098 May 27 11:16	8°♊13'36	0°-12'-39			
greatest brilliancy	4098 May 14 23:25	12°♊34'35	-1.7m			
min. Earth dist.	4098 Jun 03 01:54	5°♊44'24	0.59142 AU			
	4098 Jun 22 01:39	30°♊				
direct	4098 Jul 07 06:49	28°♌27'39				
	4098 Jul 23 00:14	0°♊				
	4098 Sep 29 18:21	0°♄				
	4098 Nov 14 04:01	0°♊				
	4098 Dec 24 19:21	0°♋				
	4099 Feb 01 15:40	0°♎				
	4099 Mar 12 06:35	0°♏				
asc. node	4099 Mar 29 08:36	13°♏05'52				
	4099 Apr 20 18:18	0°♌				
	4099 May 31 20:23	0°♄				
evening set	4099 Jun 11 09:05	7°♄28'14				
	4099 Jul 13 21:32	0°♂				
conjunction	4099 Aug 04 19:45	14°♂46'21	1°02'55			
minimum elong	4099 Aug 04 18:39	14°♂44'30	1°02'54			
max. Earth dist.	4099 Aug 26 03:27	28°♂51'32	2.61364 AU			
	4099 Aug 27 21:17	0°♊				
morning rise	4099 Sep 23 01:03	16°♊56'48				
	4099 Oct 13 12:01	0°♌				
	4099 Nov 30 10:23	0°♍				
	4100 Jan 18 21:57	0°♊				
	4100 Mar 12 20:57	0°♄				
desc. node	4100 Apr 09 06:08	13°♄40'36				
	4100 May 26 12:38	0°♊				
retrograde	4100 Jun 11 18:03	1°♊30'39				
	4100 Jun 27 04:59	30°♊				
opposition	4100 Jul 15 08:46	24°♄58'16	-4°-23'-46			
greatest brilliancy	4100 Jul 17 04:19	24°♄21'54	-2.3m			

conjunction	4101 Sep 14 10:14	23° \mathbb{M} 09'10	1°05'29		4106 Jul 24 00:37	0° \mathbb{I}	
minimum elong	4101 Sep 14 10:50	23° \mathbb{M} 10'09	1°05'29		4106 Sep 04 11:12	0° \mathfrak{S}	
max. Earth dist.	4101 Sep 19 15:54	26° \mathbb{M} 29'36	2.67021 AU	asc. node	4106 Oct 07 05:44	20° \mathfrak{S} 38'58	
	4101 Sep 25 04:00	0° \mathfrak{L}			4106 Oct 24 07:46	0° \mathcal{O}	
morning rise	4101 Oct 29 09:42	21° \mathfrak{L} 45'35		retrograde	4106 Dec 19 16:36	16° \mathcal{O} 57'13	
	4101 Nov 11 09:10	0° \mathbb{M}		min. Earth dist.	4107 Jan 21 17:46	9° \mathcal{O} 37'28	0.57881 AU
	4101 Dec 28 13:29	0° \mathfrak{A}		opposition	4107 Jan 27 23:21	7° \mathcal{O} 11'07	4°20'57
	4102 Feb 13 14:30	0° \mathfrak{C}		greatest brilliancy	4107 Jan 26 15:21	7° \mathcal{O} 42'32	-1.7m
desc. node	4102 Feb 25 05:48	7° \mathfrak{C} 24'55			4107 Feb 20 04:38	30° \mathbb{R} \mathfrak{S}	
	4102 Apr 01 21:14	0° \approx		direct	4107 Mar 05 18:19	28° \mathfrak{S} 47'09	
	4102 May 20 16:24	0° \mathfrak{H}			4107 Mar 20 00:45	0° \mathcal{O}	
	4102 Jul 16 16:58	0° \mathbb{Y}			4107 Jun 04 17:32	0° \mathbb{M}	
retrograde	4102 Aug 27 20:45	9° \mathbb{Y} 56'15			4107 Jul 28 15:32	0° \mathfrak{L}	
opposition	4102 Sep 26 22:47	4° \mathbb{Y} 58'08	-6°00'-2		4107 Sep 16 03:25	0° \mathbb{M}	
greatest brilliancy	4102 Sep 27 05:43	4° \mathbb{Y} 53'32	-2.9m	desc. node	4107 Oct 18 01:36	20° \mathbb{M} 23'32	
min. Earth dist.	4102 Sep 27 07:06	4° \mathbb{Y} 52'37	0.37068 AU		4107 Nov 01 16:00	0° \mathfrak{A}	
direct	4102 Oct 26 16:57	0° \mathbb{Y} 01'19		evening set	4107 Nov 19 06:46	11° \mathfrak{A} 50'07	
asc. node	4103 Jan 02 06:01	23° \mathbb{Y} 07'33		max. Earth dist.	4107 Dec 04 15:25	22° \mathfrak{A} 22'52	2.51805 AU
	4103 Jan 14 06:39	0° \mathfrak{B}			4107 Dec 15 13:21	0° \mathfrak{C}	
	4103 Mar 03 10:17	0° \mathbb{I}					
	4103 Apr 18 16:36	0° \mathfrak{S}		conjunction	4108 Jan 08 04:47	16° \mathfrak{C} 52'19	0°-43'-50
	4103 Jun 04 05:22	0° \mathcal{O}		minimum elong	4108 Jan 08 03:10	16° \mathfrak{C} 49'24	0°43'50
	4103 Jul 21 10:09	0° \mathbb{M}			4108 Jan 26 03:28	0° \approx	
evening set	4103 Sep 05 11:39	29° \mathbb{M} 04'26		morning rise	4108 Mar 03 14:34	28° \approx 12'30	
	4103 Sep 06 22:50	0° \mathfrak{L}			4108 Mar 05 22:41	0° \mathfrak{H}	
max. Earth dist.	4103 Oct 12 14:31	22° \mathfrak{L} 36'49	2.67221 AU		4108 Apr 13 15:13	0° \mathbb{Y}	
					4108 May 22 00:05	0° \mathfrak{B}	
conjunction	4103 Oct 20 18:53	27° \mathfrak{L} 50'21	0°42'25		4108 Jun 29 23:00	0° \mathbb{I}	
minimum elong	4103 Oct 20 19:55	27° \mathfrak{L} 52'01	0°42'24		4108 Aug 09 12:33	0° \mathfrak{S}	
	4103 Oct 24 03:55	0° \mathbb{M}		asc. node	4108 Aug 24 04:11	10° \mathfrak{S} 23'37	
morning rise	4103 Dec 03 22:15	26° \mathbb{M} 22'14			4108 Sep 22 01:18	0° \mathcal{O}	
	4103 Dec 09 11:10	0° \mathfrak{A}			4108 Nov 10 16:59	0° \mathbb{M}	
desc. node	4104 Jan 13 04:01	23° \mathfrak{A} 01'49		retrograde	4109 Jan 24 07:11	24° \mathbb{M} 52'39	
	4104 Jan 23 12:24	0° \mathfrak{C}		min. Earth dist.	4109 Mar 03 04:47	15° \mathbb{M} 54'41	0.66042 AU
	4104 Mar 07 06:09	0° \approx		opposition	4109 Mar 05 14:33	14° \mathbb{M} 56'56	4°31'57
	4104 Apr 18 19:49	0° \mathfrak{H}		greatest brilliancy	4109 Mar 05 01:50	15° \mathbb{M} 09'40	-1.3m
	4104 May 30 15:10	0° \mathbb{Y}		direct	4109 Apr 14 07:54	5° \mathbb{M} 31'12	
	4104 Jul 11 17:28	0° \mathfrak{B}			4109 Jul 01 19:16	0° \mathfrak{L}	
	4104 Aug 26 05:19	0° \mathbb{I}			4109 Aug 25 09:20	0° \mathbb{M}	
retrograde	4104 Nov 03 17:53	25° \mathbb{I} 47'56		desc. node	4109 Sep 04 00:19	5° \mathbb{M} 46'44	
asc. node	4104 Nov 19 06:01	24° \mathbb{I} 02'26			4109 Oct 12 09:46	0° \mathfrak{A}	
min. Earth dist.	4104 Dec 01 06:32	20° \mathbb{I} 36'46	0.44871 AU		4109 Nov 25 14:02	0° \mathfrak{C}	
opposition	4104 Dec 09 13:34	17° \mathbb{I} 45'39	1°12'47	evening set	4110 Jan 05 15:52	29° \mathfrak{C} 47'37	
greatest brilliancy	4104 Dec 08 22:27	17° \mathbb{I} 58'41	-2.4m		4110 Jan 05 22:30	0° \approx	
direct	4105 Jan 10 20:31	11° \mathbb{I} 14'23		max. Earth dist.	4110 Jan 30 18:12	18° \approx 46'43	2.38926 AU
	4105 Mar 15 05:18	0° \mathfrak{S}			4110 Feb 14 07:16	0° \mathfrak{H}	
	4105 May 10 00:46	0° \mathcal{O}					
	4105 Jun 29 22:01	0° \mathbb{M}		conjunction	4110 Mar 07 05:14	16° \mathfrak{H} 20'27	-1°-3'-39
	4105 Aug 18 03:50	0° \mathfrak{L}		minimum elong	4110 Mar 07 06:23	16° \mathfrak{H} 22'43	1°03'40
	4105 Oct 04 23:38	0° \mathbb{M}			4110 Mar 24 13:15	0° \mathbb{Y}	
evening set	4105 Oct 11 02:09	3° \mathbb{M} 54'11			4110 May 01 13:54	0° \mathfrak{B}	
max. Earth dist.	4105 Nov 04 16:31	19° \mathbb{M} 50'22	2.62001 AU	morning rise	4110 May 16 17:45	11° \mathfrak{B} 51'07	
	4105 Nov 20 02:15	0° \mathfrak{A}			4110 Jun 09 06:36	0° \mathbb{I}	
				asc. node	4110 Jul 12 03:11	24° \mathbb{I} 37'48	
conjunction	4105 Nov 25 20:01	3° \mathfrak{A} 49'30	0°02'26		4110 Jul 19 11:22	0° \mathfrak{S}	
minimum elong	4105 Nov 25 20:08	3° \mathfrak{A} 49'41	0°02'26		4110 Aug 30 22:31	0° \mathcal{O}	
behind sun begin	4105 Nov 25 00:57	3° \mathfrak{A} 17'41			4110 Oct 15 14:31	0° \mathbb{M}	
behind sun end	4105 Nov 26 15:19	4° \mathfrak{A} 21'43			4110 Dec 05 19:55	0° \mathfrak{L}	
desc. node	4105 Nov 30 02:37	6° \mathfrak{A} 41'12		retrograde	4111 Feb 27 14:21	28° \mathfrak{L} 17'33	
	4106 Jan 03 06:30	0° \mathfrak{C}		opposition	4111 Apr 08 15:01	18° \mathfrak{L} 46'44	3°19'37
morning rise	4106 Jan 11 14:04	5° \mathfrak{C} 47'50		greatest brilliancy	4111 Apr 08 20:17	18° \mathfrak{L} 41'31	-1.2m
	4106 Feb 14 13:36	0° \approx		min. Earth dist.	4111 Apr 10 02:20	18° \mathfrak{L} 11'48	0.67710 AU
	4106 Mar 27 06:22	0° \mathfrak{H}		direct	4111 May 19 22:25	8° \mathfrak{L} 49'38	
	4106 May 05 20:42	0° \mathbb{Y}		desc. node	4111 Jul 22 23:00	26° \mathfrak{L} 51'28	
	4106 Jun 14 02:04	0° \mathfrak{B}			4111 Jul 29 12:00	0° \mathbb{M}	

	4111 Sep 20 20:45	0°♊			4116 Aug 16 07:07	0°♎		
	4111 Nov 05 11:05	0°♌						
	4111 Dec 17 03:14	0°♍		conjunction	4116 Aug 30 11:46	9°♎12'09	1°08'08	
	4112 Jan 25 10:57	0°♋		minimum elong	4116 Aug 30 11:51	9°♎12'17	1°08'08	
	4112 Mar 03 14:26	0°♐		max. Earth dist.	4116 Sep 10 15:38	16°♎23'18	2.65456 AU	
evening set	4112 Mar 11 19:36	6°♐30'11			4116 Oct 01 22:27	0°♏		
	4112 Apr 10 14:29	0°♉		morning rise	4116 Oct 15 15:35	8°♏43'00		
					4116 Nov 18 07:42	0°♌		
conjunction	4112 May 19 15:58	0°♏12'46	0°-6'-25		4117 Jan 05 03:21	0°♊		
minimum elong	4112 May 19 16:34	0°♏13'55	0°06'26		4117 Feb 22 15:25	0°♌		
behind sun begin	4112 May 18 14:07	29°♉23'38		desc. node	4117 Mar 13 20:03	11°♌37'07		
behind sun end	4112 May 20 19:01	1°♏04'09			4117 Apr 14 04:49	0°♍		
	4112 May 19 09:15	0°♏			4117 Jun 12 21:32	0°♋		
asc. node	4112 May 29 02:40	7°♏21'35		retrograde	4117 Jul 26 05:13	9°♋45'01		
	4112 Jun 28 16:57	0°♏		opposition	4117 Aug 25 20:20	4°♋31'41	-6°-34'-59	
max. Earth dist.	4112 Jul 08 11:46	7°♏04'04	2.45143 AU	greatest brilliancy	4117 Aug 27 12:30	4°♋03'23	-2.7m	
morning rise	4112 Jul 22 23:40	17°♏22'46		min. Earth dist.	4117 Aug 31 08:46	2°♋58'47	0.39258 AU	
	4112 Aug 10 02:17	0°♏			4117 Sep 12 19:28	30°♋		
	4112 Sep 23 21:33	0°♎		direct	4117 Sep 27 00:15	28°♋38'48		
	4112 Nov 10 12:39	0°♏			4117 Oct 11 03:56	0°♋		
	4113 Jan 01 16:34	0°♌			4117 Dec 15 14:13	0°♐		
	4113 Mar 15 14:22	0°♊		asc. node	4118 Jan 18 23:44	22°♐27'19		
retrograde	4113 Apr 04 12:43	2°♊12'55			4118 Jan 30 02:21	0°♉		
	4113 Apr 23 06:57	30°♌			4118 Mar 14 17:42	0°♏		
opposition	4113 May 13 01:45	23°♌30'04	1°01'24		4118 Apr 27 20:23	0°♏		
greatest brilliancy	4113 May 13 08:54	23°♌23'12	-1.4m		4118 Jun 12 03:18	0°♏		
min. Earth dist.	4113 May 18 07:42	21°♌29'02	0.62785 AU		4118 Jul 28 14:25	0°♎		
desc. node	4113 Jun 08 22:11	14°♌53'51		evening set	4118 Aug 21 21:53	15°♎29'44		
direct	4113 Jun 23 10:28	13°♌31'22			4118 Sep 13 18:03	0°♏		
	4113 Aug 20 19:35	0°♊		max. Earth dist.	4118 Oct 03 15:32	12°♏38'01	2.67795 AU	
	4113 Oct 12 01:41	0°♌						
	4113 Nov 24 12:18	0°♍		conjunction	4118 Oct 06 20:23	14°♏40'10	0°53'46	
	4114 Jan 03 11:11	0°♋		minimum elong	4118 Oct 06 21:26	14°♏41'50	0°53'45	
	4114 Feb 10 22:41	0°♐			4118 Oct 30 21:39	0°♌		
	4114 Mar 21 06:29	0°♉		morning rise	4118 Nov 19 23:04	12°♌51'43		
asc. node	4114 Apr 16 00:31	19°♉49'41			4118 Dec 16 10:55	0°♊		
	4114 Apr 29 10:55	0°♏		desc. node	4119 Jan 29 18:51	29°♊07'49		
evening set	4114 May 20 21:44	15°♏57'04			4119 Jan 31 02:17	0°♌		
	4114 Jun 09 05:39	0°♏			4119 Mar 16 19:25	0°♍		
					4119 Apr 29 19:00	0°♋		
conjunction	4114 Jul 18 09:51	27°♏31'56	0°52'17		4119 Jun 12 16:44	0°♐		
minimum elong	4114 Jul 18 08:01	27°♏28'46	0°52'16		4119 Jul 28 19:48	0°♉		
	4114 Jul 22 00:11	0°♏		retrograde	4119 Oct 12 14:07	29°♉11'20		
max. Earth dist.	4114 Aug 16 01:43	16°♏56'15	2.57691 AU	min. Earth dist.	4119 Nov 08 00:25	24°♉38'11	0.40121 AU	
	4114 Sep 04 20:00	0°♎		opposition	4119 Nov 14 20:09	22°♉32'46	-1°-28'-49	
morning rise	4114 Sep 08 13:36	2°♎26'32		greatest brilliancy	4119 Nov 14 08:06	22°♉42'03	-2.7m	
	4114 Oct 21 12:35	0°♏		asc. node	4119 Dec 06 22:55	17°♉26'20		
	4114 Dec 09 01:11	0°♌		direct	4119 Dec 15 08:33	16°♉57'51		
	4115 Jan 29 08:45	0°♊			4120 Feb 03 03:57	0°♏		
	4115 Mar 30 12:16	0°♌			4120 Mar 30 18:48	0°♏		
desc. node	4115 Apr 26 20:59	9°♌09'42			4120 May 19 22:33	0°♏		
retrograde	4115 May 20 17:01	12°♌15'40			4120 Jul 07 21:30	0°♎		
opposition	4115 Jun 25 02:59	4°♌56'01	-2°-36'-59		4120 Aug 25 06:58	0°♏		
greatest brilliancy	4115 Jun 26 05:56	4°♌32'02	-2.0m	evening set	4120 Sep 26 20:02	20°♏28'11		
min. Earth dist.	4115 Jul 03 08:36	2°♌00'29	0.51872 AU		4120 Oct 11 19:09	0°♌		
	4115 Jul 09 10:48	30°♌		max. Earth dist.	4120 Oct 26 02:54	9°♌12'18	2.64669 AU	
direct	4115 Aug 03 02:43	25°♊57'06						
	4115 Aug 28 11:12	0°♌		conjunction	4120 Nov 11 01:12	19°♌33'21	0°19'23	
	4115 Oct 27 08:50	0°♍		minimum elong	4120 Nov 11 01:49	19°♌34'20	0°19'23	
	4115 Dec 09 19:39	0°♋			4120 Nov 26 22:21	0°♊		
	4116 Jan 18 22:19	0°♐		desc. node	4120 Dec 16 17:08	13°♊12'25		
	4116 Feb 27 09:48	0°♉		morning rise	4120 Dec 26 06:43	19°♊40'25		
asc. node	4116 Mar 02 23:44	3°♉27'36			4121 Jan 10 09:12	0°♌		
	4116 Apr 07 14:53	0°♏			4121 Feb 22 03:21	0°♍		
	4116 May 19 08:39	0°♏			4121 Apr 04 09:36	0°♋		
	4116 Jul 01 22:50	0°♏			4121 May 14 14:23	0°♐		
evening set	4116 Jul 11 15:31	6°♏30'15			4121 Jun 23 11:32	0°♉		

	4121 Aug 03 09:00	0°♂			4126 Sep 29 10:26	0°♂		
	4121 Sep 17 04:28	0°♂			4126 Nov 13 06:52	0°♂		
asc. node	4121 Oct 23 21:15	19°♂36'52			4126 Dec 24 18:21	0°♂		
retrograde	4121 Dec 03 11:51	29°♂31'56			4127 Feb 02 01:21	0°♂		
min. Earth dist.	4122 Jan 03 07:45	23°♂00'42	0.53149 AU	evening set	4127 Feb 12 18:35	8°♂22'19		
greatest brilliancy	4122 Jan 09 10:04	20°♂41'58	-1.9m		4127 Mar 12 04:44	0°♂		
opposition	4122 Jan 10 20:11	20°♂09'26	3°38'43		4127 Apr 19 03:57	0°♂		
direct	4122 Feb 15 02:03	12°♂22'01						
	4122 Apr 18 13:35	0°♂		conjunction	4127 Apr 21 20:18	2°♂06'18	0°-35'-51	
	4122 Jun 15 05:07	0°♂		minimum elong	4127 Apr 21 23:27	2°♂12'28	0°35'50	
	4122 Aug 05 15:28	0°♂			4127 May 27 20:41	0°♂		
	4122 Sep 23 07:30	0°♂		max. Earth dist.	4127 Jun 11 18:28	11°♂16'51	2.39737 AU	
evening set	4122 Nov 03 09:14	26°♂32'09		asc. node	4127 Jun 15 17:54	14°♂15'35		
desc. node	4122 Nov 03 16:19	26°♂43'51		morning rise	4127 Jun 30 10:38	25°♂09'04		
	4122 Nov 08 14:39	0°♂			4127 Jul 07 01:45	0°♂		
max. Earth dist.	4122 Nov 21 18:42	8°♂49'32	2.56330 AU		4127 Aug 18 09:45	0°♂		
					4127 Oct 02 08:48	0°♂		
conjunction	4122 Dec 21 02:10	28°♂57'50	0°-26'-23		4127 Nov 19 19:42	0°♂		
minimum elong	4122 Dec 21 01:10	28°♂56'05	0°26'23		4128 Jan 14 12:54	0°♂		
	4122 Dec 22 13:43	0°♂		retrograde	4128 Mar 20 12:50	18°♂51'39		
	4123 Feb 02 09:36	0°♂		opposition	4128 Apr 28 19:35	9°♂47'01	2°03'05	
morning rise	4123 Feb 10 01:44	5°♂39'13		greatest brilliancy	4128 Apr 29 05:05	9°♂37'45	-1.3m	
	4123 Mar 14 12:03	0°♂		min. Earth dist.	4128 May 02 14:42	8°♂18'12	0.65496 AU	
	4123 Apr 22 11:34	0°♂			4128 Jun 02 23:58	30°♂		
	4123 May 31 02:21	0°♂		direct	4128 Jun 09 08:50	29°♂44'27		
	4123 Jul 09 06:49	0°♂			4128 Jun 15 20:40	0°♂		
	4123 Aug 19 05:38	0°♂		desc. node	4128 Jun 25 12:46	1°♂16'34		
asc. node	4123 Sep 10 21:09	15°♂39'40			4128 Sep 03 08:54	0°♂		
	4123 Oct 02 20:55	0°♂			4128 Oct 21 14:45	0°♂		
	4123 Nov 26 23:45	0°♂			4128 Dec 03 02:06	0°♂		
retrograde	4124 Jan 11 15:50	11°♂11'51			4129 Jan 11 16:24	0°♂		
min. Earth dist.	4124 Feb 16 19:37	2°♂47'51	0.63601 AU		4129 Feb 18 23:01	0°♂		
opposition	4124 Feb 20 17:47	1°♂13'53	4°40'18		4129 Mar 29 02:15	0°♂		
greatest brilliancy	4124 Feb 19 20:40	1°♂34'58	-1.4m	evening set	4129 Apr 25 07:09	21°♂03'08		
	4124 Feb 23 20:18	30°♂		asc. node	4129 May 02 18:01	26°♂44'15		
direct	4124 Mar 30 11:31	22°♂07'48			4129 May 07 01:14	0°♂		
	4124 May 09 05:45	0°♂			4129 Jun 16 13:56	0°♂		
	4124 Jul 12 16:49	0°♂						
	4124 Sep 02 12:45	0°♂		conjunction	4129 Jun 27 14:29	7°♂55'05	0°34'50	
desc. node	4124 Sep 20 15:37	11°♂13'30		minimum elong	4129 Jun 27 12:28	7°♂51'29	0°34'48	
	4124 Oct 19 19:04	0°♂			4129 Jul 29 03:08	0°♂		
	4124 Dec 02 19:03	9°♂29'11		max. Earth dist.	4129 Aug 03 14:28	3°♂45'05	2.53230 AU	
evening set	4124 Dec 16 03:20	9°♂29'11		morning rise	4129 Aug 22 17:37	16°♂41'01		
max. Earth dist.	4124 Dec 31 00:45	20°♂16'52	2.43848 AU		4129 Sep 11 20:28	0°♂		
	4125 Jan 13 04:53	0°♂			4129 Oct 28 17:49	0°♂		
					4129 Dec 17 04:02	0°♂		
conjunction	4125 Feb 09 15:35	20°♂43'22	-1°-3'-10		4130 Feb 09 14:34	0°♂		
minimum elong	4125 Feb 09 14:33	20°♂41'22	1°03'11	retrograde	4130 May 01 00:51	25°♂38'57		
	4125 Feb 21 16:57	0°♂		desc. node	4130 May 13 11:39	24°♂40'58		
	4125 Apr 01 02:15	0°♂		opposition	4130 Jun 06 22:06	17°♂41'05	-1°-1'-36	
morning rise	4125 Apr 15 19:02	11°♂34'48		greatest brilliancy	4130 Jun 07 07:48	17°♂32'07	-1.7m	
	4125 May 09 05:15	0°♂		min. Earth dist.	4130 Jun 14 05:03	14°♂59'05	0.56749 AU	
	4125 Jun 16 23:04	0°♂		direct	4130 Jul 17 05:37	8°♂07'13		
	4125 Jul 27 05:00	0°♂			4130 Sep 21 22:30	0°♂		
asc. node	4125 Jul 28 19:34	1°♂09'57			4130 Nov 08 15:45	0°♂		
	4125 Sep 07 21:07	0°♂			4130 Dec 19 23:52	0°♂		
	4125 Oct 24 09:01	0°♂			4131 Jan 28 04:18	0°♂		
	4125 Dec 18 12:45	0°♂			4131 Mar 08 00:51	0°♂		
retrograde	4126 Feb 14 05:23	15°♂40'32		asc. node	4131 Mar 20 17:15	9°♂41'30		
opposition	4126 Mar 26 11:59	5°♂57'11	3°55'23		4131 Apr 16 17:09	0°♂		
greatest brilliancy	4126 Mar 26 11:18	5°♂57'52	-1.2m		4131 May 27 23:17	0°♂		
min. Earth dist.	4126 Mar 26 11:03	5°♂58'07	0.67860 AU	evening set	4131 Jun 23 22:19	18°♂53'23		
	4126 Apr 11 17:22	30°♂			4131 Jul 10 03:39	0°♂		
direct	4126 May 06 08:19	26°♂09'11						
	4126 Jun 02 04:12	0°♂		conjunction	4131 Aug 15 12:26	24°♂17'55	1°06'18	
desc. node	4126 Aug 08 14:21	29°♂12'04		minimum elong	4131 Aug 15 11:47	24°♂16'51	1°06'18	
	4126 Aug 10 01:26	0°♂			4131 Aug 24 05:07	0°♂		

max. Earth dist.	4131 Sep 02 00:52	5° \cap 44'59	2.63038 AU	opposition	4136 Dec 22 03:54	0° \ominus 39'32	2°19'50
morning rise	4131 Oct 02 11:16	25° \cap 20'21			4136 Dec 24 00:10	30° \cap II	
	4131 Oct 09 18:49	0° $\underline{\cap}$		direct	4137 Jan 24 14:00	23° \cap 38'27	
	4131 Nov 26 11:01	0° \cap			4137 Feb 27 12:46	0° \ominus	
	4132 Jan 14 04:50	0° \nearrow			4137 May 02 18:13	0° Ω	
	4132 Mar 05 00:46	0° $\overline{\cap}$			4137 Jun 24 07:31	0° \cap	
desc. node	4132 Mar 30 10:44	13° $\overline{\cap}$ 59'38			4137 Aug 13 04:55	0° $\underline{\cap}$	
	4132 May 02 04:27	0° \approx			4137 Sep 30 07:27	0° \cap	
retrograde	4132 Jun 26 09:21	14° \approx 19'55		evening set	4137 Oct 19 08:38	12° \cap 12'53	
opposition	4132 Jul 28 23:41	8° \approx 16'34	-5°-22'-50	max. Earth dist.	4137 Nov 10 15:07	26° \cap 46'36	2.60199 AU
greatest brilliancy	4132 Jul 31 00:10	7° \approx 38'06	-2.4m		4137 Nov 15 11:52	0° \nearrow	
min. Earth dist.	4132 Aug 05 23:59	5° \approx 45'21	0.43671 AU	desc. node	4137 Nov 20 07:45	3° \nearrow 12'57	
direct	4132 Sep 02 07:11	0° \approx 58'15					
	4132 Nov 16 15:02	0° \times		conjunction	4137 Dec 04 15:02	12° \nearrow 50'20	0°-8'-2
	4132 Dec 31 02:24	0° γ		minimum elong	4137 Dec 04 14:44	12° \nearrow 49'51	0°08'03
	4133 Feb 04 15:31	25° γ 35'03		behind sun begin	4137 Dec 03 21:21	12° \nearrow 20'26	
	4133 Feb 10 17:47	0° \times		behind sun end	4137 Dec 05 08:07	13° \nearrow 19'17	
asc. node	4133 Mar 24 10:19	0° \cap			4137 Dec 29 14:33	0° $\overline{\cap}$	
	4133 May 06 07:03	0° \ominus		morning rise	4138 Jan 21 14:04	16° $\overline{\cap}$ 11'53	
	4133 Jun 19 17:45	0° Ω			4138 Feb 09 17:44	0° \approx	
	4133 Aug 04 15:44	0° \cap			4138 Mar 22 05:05	0° \times	
	4133 Aug 06 16:12	1° \cap 18'07			4138 Apr 30 13:18	0° γ	
evening set	4133 Sep 20 12:42	0° $\underline{\cap}$			4138 Jun 08 12:14	0° \times	
					4138 Jul 18 01:53	0° \cap	
conjunction	4133 Sep 22 16:56	1° $\underline{\cap}$ 23'06	1°02'09		4138 Aug 28 17:59	0° \ominus	
minimum elong	4133 Sep 22 17:46	1° $\underline{\cap}$ 24'27	1°02'08	asc. node	4138 Sep 27 12:26	19° \ominus 39'43	
max. Earth dist.	4133 Sep 24 20:26	2° $\underline{\cap}$ 45'01	2.67521 AU		4138 Oct 14 16:38	0° Ω	
morning rise	4133 Nov 06 05:57	29° $\underline{\cap}$ 42'57		retrograde	4138 Dec 28 08:43	26° Ω 29'18	
	4133 Nov 06 16:40	0° \cap		min. Earth dist.	4139 Jan 31 13:47	18° Ω 44'35	0.60193 AU
	4133 Dec 23 14:35	0° \nearrow		opposition	4139 Feb 05 23:45	16° Ω 36'04	4°33'49
	4134 Feb 08 01:31	0° $\overline{\cap}$		greatest brilliancy	4139 Feb 04 18:59	17° Ω 04'34	-1.6m
	4134 Feb 15 09:42	4° $\overline{\cap}$ 45'49		direct	4139 Mar 15 12:43	7° Ω 55'06	
desc. node	4134 Mar 26 05:11	0° \approx			4139 May 27 15:18	0° \cap	
	4134 May 11 15:28	0° \times			4139 Jul 22 23:04	0° $\underline{\cap}$	
	4134 Jun 29 11:38	0° γ			4139 Sep 11 04:13	0° \cap	
	4134 Sep 14 15:47	28° γ 21'29		desc. node	4139 Oct 08 06:35	17° \cap 08'21	
	4134 Oct 12 13:26	23° γ 47'59	0.37296 AU		4139 Oct 27 23:02	0° \nearrow	
min. Earth dist.	4134 Oct 15 08:18	23° γ 02'47	-4°-38'-53	evening set	4139 Nov 28 20:42	21° \nearrow 35'51	
opposition	4134 Oct 14 22:36	23° γ 09'21	-2.9m		4139 Dec 10 21:46	0° $\overline{\cap}$	
greatest brilliancy	4134 Nov 13 16:23	18° γ 07'40		max. Earth dist.	4139 Dec 13 04:13	1° $\overline{\cap}$ 35'50	2.49088 AU
direct	4134 Nov 13 16:23	18° γ 07'40					
	4134 Dec 23 15:18	27° γ 17'05					
	4134 Dec 29 23:22	0° \times		conjunction	4140 Jan 19 09:59	28° $\overline{\cap}$ 29'31	0°-52'-34
	4135 Feb 23 00:22	0° \cap		minimum elong	4140 Jan 19 08:15	28° $\overline{\cap}$ 26'19	0°52'34
	4135 Apr 12 06:44	0° \ominus			4140 Jan 21 10:56	0° \approx	
asc. node	4135 May 29 18:11	0° Ω			4140 Mar 01 03:54	0° \times	
	4135 Jul 16 11:06	0° \cap		morning rise	4140 Mar 17 23:11	12° \times 59'41	
	4135 Sep 02 06:03	0° $\underline{\cap}$			4140 Apr 08 17:43	0° γ	
	4135 Sep 13 15:37	7° $\underline{\cap}$ 11'03			4140 May 17 00:01	0° \times	
	4135 Oct 17 20:13	28° $\underline{\cap}$ 54'08	2.66533 AU		4140 Jun 24 20:02	0° \cap	
max. Earth dist.	4135 Oct 19 13:23	0° \cap			4140 Aug 04 04:52	0° \ominus	
				asc. node	4140 Aug 14 12:31	7° \ominus 23'58	
conjunction	4135 Oct 28 19:18	5° \cap 56'10	0°34'35		4140 Sep 16 06:30	0° Ω	
minimum elong	4135 Oct 28 20:14	5° \cap 57'40	0°34'35		4140 Nov 03 06:28	0° \cap	
	4135 Dec 04 18:57	0° \nearrow			4141 Jan 09 17:50	0° $\underline{\cap}$	
morning rise	4135 Dec 12 04:28	4° \nearrow 52'58		retrograde	4141 Jan 31 23:54	2° $\underline{\cap}$ 53'46	
	4136 Jan 03 08:38	19° \nearrow 40'49			4141 Feb 21 19:36	30° \cap \cap	
desc. node	4136 Jan 18 14:36	0° $\overline{\cap}$		min. Earth dist.	4141 Mar 11 18:34	23° \cap 38'39	0.66974 AU
	4136 Mar 01 23:00	0° \approx		opposition	4141 Mar 13 07:58	23° \cap 01'15	4°21'36
	4136 Apr 12 23:39	0° \times		greatest brilliancy	4141 Mar 12 23:49	23° \cap 09'25	-1.3m
	4136 May 24 02:03	0° γ		direct	4141 Apr 22 11:59	13° \cap 26'22	
	4136 Jul 04 02:43	0° \times			4141 Jun 23 03:09	0° $\underline{\cap}$	
asc. node	4136 Aug 16 01:24	0° \cap			4141 Aug 19 14:56	0° \cap	
	4136 Oct 07 17:58	0° \ominus		desc. node	4141 Aug 25 05:02	3° \cap 16'02	
	4136 Nov 09 14:33	9° \ominus 03'38			4141 Oct 07 08:39	0° \nearrow	
	4136 Nov 15 06:11	9° \ominus 17'32			4141 Nov 20 18:31	0° $\overline{\cap}$	
	4136 Dec 13 20:24	3° \ominus 38'42	0.47858 AU		4142 Jan 01 04:25	0° \approx	
greatest brilliancy	4136 Dec 21 01:18	1° \ominus 03'31	-2.2m	evening set	4142 Jan 18 12:04	13° \approx 03'08	

	4142 Feb 09 12:51	0° H		max. Earth dist.	4146 Aug 22 13:46	24° Ω 21'47	2.59817 AU
max. Earth dist.	4142 Mar 08 16:52	21° H 16'42	2.37060 AU		4146 Aug 31 03:28	0° M	
	4142 Mar 19 17:56	0° Y		morning rise	4146 Sep 17 13:03	11° M 19'19	
					4146 Oct 16 17:50	0° Ω	
conjunction	4142 Mar 23 02:02	2° Y 38'17	0°-57'-39		4146 Dec 03 20:56	0° M	
minimum elong	4142 Mar 23 04:41	2° Y 43'32	0°57'40		4147 Jan 22 23:53	0° J	
	4142 Apr 26 17:55	0° B			4147 Mar 19 02:38	0° Z	
morning rise	4142 Jun 02 18:12	28° B 43'52		desc. node	4147 Apr 17 01:34	12° Z 55'36	
	4142 Jun 04 10:03	0° II		retrograde	4147 Jun 02 06:59	23° Z 16'13	
asc. node	4142 Jul 02 12:07	21° II 07'49		opposition	4147 Jul 06 17:32	16° Z 21'36	-3°-37'-14
	4142 Jul 14 13:47	0° S		greatest brilliancy	4147 Jul 08 06:33	15° Z 49'39	-2.1m
	4142 Aug 25 22:09	0° Ω		min. Earth dist.	4147 Jul 15 04:11	13° Z 27'24	0.48947 AU
	4142 Oct 10 04:47	0° M		direct	4147 Aug 13 15:05	7° Z 51'42	
	4142 Nov 29 00:43	0° Ω			4147 Oct 17 09:45	0° \approx	
	4143 Feb 01 13:00	0° M			4147 Dec 02 14:16	0° H	
retrograde	4143 Mar 07 10:10	6° M 00'52			4148 Jan 12 15:46	0° Y	
	4143 Apr 07 10:32	30° R Ω			4148 Feb 21 16:15	0° B	
opposition	4143 Apr 16 05:41	26° Ω 38'22	2°54'11	asc. node	4148 Feb 22 08:57	0° B 31'12	
greatest brilliancy	4143 Apr 16 13:18	26° Ω 30'52	-1.2m		4148 Apr 02 06:44	0° II	
min. Earth dist.	4143 Apr 18 13:05	25° Ω 43'47	0.67202 AU		4148 May 14 07:36	0° S	
direct	4143 May 27 16:39	16° Ω 37'49			4148 Jun 27 03:20	0° Ω	
desc. node	4143 Jul 13 03:42	27° Ω 10'02		evening set	4148 Jul 21 10:54	16° Ω 09'23	
	4143 Jul 20 00:23	0° M			4148 Aug 11 15:04	0° M	
	4143 Sep 14 20:20	0° J					
	4143 Oct 31 05:00	0° Z		conjunction	4148 Sep 08 02:46	17° M 43'51	1°07'04
	4143 Dec 12 03:19	0° \approx		minimum elong	4148 Sep 08 03:12	17° M 44'31	1°07'04
	4144 Jan 20 13:07	0° H		max. Earth dist.	4148 Sep 16 00:46	22° M 47'53	2.66423 AU
	4144 Feb 27 17:18	0° Y			4148 Sep 27 07:32	0° Ω	
greatest brilliancy	4144 Mar 04 23:58	4° Y 57'55	1.2m	morning rise	4148 Oct 23 13:17	16° Ω 40'31	
evening set	4144 Mar 28 03:00	23° Y 13'42			4148 Nov 13 14:06	0° M	
	4144 Apr 05 17:58	0° B			4148 Dec 31 00:31	0° J	
	4144 May 14 13:31	0° II			4149 Feb 16 15:15	0° Z	
asc. node	4144 May 19 10:06	3° II 40'59		desc. node	4149 Mar 04 01:12	9° Z 38'11	
					4149 Apr 06 02:09	0° \approx	
conjunction	4144 Jun 03 16:20	15° II 07'35	0°10'13		4149 May 27 19:00	0° H	
minimum elong	4144 Jun 03 15:29	15° II 06'00	0°10'12	retrograde	4149 Aug 13 12:10	26° H 43'11	
behind sun begin	4144 Jun 02 18:13	14° II 26'26		opposition	4149 Sep 12 13:24	21° H 45'35	-6°-32'-50
behind sun end	4144 Jun 04 12:46	15° II 45'31		greatest brilliancy	4149 Sep 13 12:52	21° H 29'47	-2.8m
	4144 Jun 23 22:02	0° S		min. Earth dist.	4149 Sep 15 10:25	20° H 59'11	0.37660 AU
max. Earth dist.	4144 Jul 19 05:34	18° S 05'56	2.48157 AU	direct	4149 Oct 13 04:47	16° H 31'02	
morning rise	4144 Aug 03 20:33	28° S 59'23			4149 Nov 30 13:59	0° Y	
	4144 Aug 05 07:42	0° Ω		asc. node	4150 Jan 09 06:47	22° Y 25'32	
	4144 Sep 19 00:39	0° M			4150 Jan 21 06:45	0° B	
	4144 Nov 05 06:45	0° Ω			4150 Mar 07 22:00	0° II	
	4144 Dec 26 02:56	0° M			4150 Apr 22 01:10	0° S	
	4145 Feb 25 05:53	0° J			4150 Jun 06 22:44	0° Ω	
retrograde	4145 Apr 13 16:16	10° J 42'07			4150 Jul 23 18:26	0° M	
opposition	4145 May 21 16:52	2° J 13'34	0°19'53	evening set	4150 Aug 30 07:17	23° M 47'31	
greatest brilliancy	4145 May 21 19:43	2° J 10'52	-1.5m		4150 Sep 09 02:37	0° Ω	
	4145 May 27 13:15	30° R M		max. Earth dist.	4150 Oct 08 19:34	18° Ω 50'48	2.67587 AU
min. Earth dist.	4145 May 27 17:10	29° M 56'18	0.60889 AU				
desc. node	4145 May 30 02:16	29° M 03'08		conjunction	4150 Oct 14 19:52	22° Ω 40'34	0°47'28
direct	4145 Jul 01 19:12	22° M 20'28		minimum elong	4150 Oct 14 20:57	22° Ω 42'16	0°47'27
	4145 Aug 08 03:32	0° J			4150 Oct 26 07:11	0° M	
	4145 Oct 05 06:04	0° Z		morning rise	4150 Nov 27 21:26	20° M 59'33	
	4145 Nov 18 17:59	0° \approx			4150 Dec 11 17:25	0° J	
	4145 Dec 29 02:16	0° H		desc. node	4151 Jan 19 23:35	25° J 56'09	
	4146 Feb 05 18:23	0° Y			4151 Jan 26 01:17	0° Z	
	4146 Mar 16 05:29	0° B			4151 Mar 11 05:13	0° \approx	
asc. node	4146 Apr 06 09:21	16° B 16'29			4151 Apr 23 08:43	0° H	
	4146 Apr 24 12:47	0° II			4151 Jun 04 22:31	0° Y	
evening set	4146 Jun 02 23:21	28° II 57'41			4151 Jul 18 06:37	0° B	
	4146 Jun 04 10:06	0° S			4151 Sep 05 11:31	0° II	
	4146 Jul 17 06:54	0° Ω		retrograde	4151 Oct 26 04:01	15° II 14'15	
				min. Earth dist.	4151 Nov 22 00:01	10° II 23'32	0.42587 AU
conjunction	4146 Jul 29 02:55	8° Ω 02'29	0°59'11	asc. node	4151 Nov 27 06:21	8° II 40'17	
minimum elong	4146 Jul 29 01:28	8° Ω 00'02	0°59'10	opposition	4151 Nov 29 22:34	7° II 47'14	0°10'12

greatest brilliancy	4151 Dec 24 11:35	2°II00'51	-2.7m		4157 Feb 16 22:55	0°X	
direct	4151 Dec 31 08:47	1°II41'27					
	4152 Mar 21 20:35	0°S		conjunction	4157 Feb 23 14:28	5°X09'39	-1°-5'-2
	4152 May 13 15:34	0°Q		minimum elong	4157 Feb 23 14:32	5°X09'45	1°05'03
	4152 Jul 02 14:19	0°P			4157 Mar 27 06:33	0°Y	
	4152 Aug 20 10:52	0°A		morning rise	4157 May 03 02:53	29°Y02'57	
evening set	4152 Oct 04 23:21	28°A36'18			4157 May 04 07:57	0°B	
	4152 Oct 07 03:50	0°M			4157 Jun 12 00:21	0°II	
max. Earth dist.	4152 Oct 31 16:04	15°M47'30	2.63296 AU	asc. node	4157 Jul 19 03:35	27°II47'32	
					4157 Jul 22 04:08	0°S	
conjunction	4152 Nov 19 09:46	28°M04'46	0°09'43		4157 Sep 02 15:27	0°Q	
minimum elong	4152 Nov 19 10:05	28°M05'17	0°09'42		4157 Oct 18 12:16	0°P	
behind sun begin	4152 Nov 18 18:35	27°M39'41			4157 Dec 09 20:33	0°A	
behind sun end	4152 Nov 20 01:35	28°M30'53		retrograde	4158 Feb 21 21:32	23°A24'03	
	4152 Nov 22 07:26	0°J		opposition	4158 Apr 03 01:00	13°A47'16	3°35'34
desc. node	4152 Dec 06 22:05	9°J44'51		greatest brilliancy	4158 Apr 03 03:51	13°A44'25	-1.2m
morning rise	4153 Jan 04 08:58	29°J07'14		min. Earth dist.	4158 Apr 03 20:16	13°A28'07	0.67901 AU
	4153 Jan 05 15:31	0°C		direct	4158 May 14 03:28	3°A53'41	
	4153 Feb 17 04:15	0°X		desc. node	4158 Jul 29 18:16	27°A53'49	
	4153 Mar 30 03:32	0°X			4158 Aug 02 21:02	0°M	
	4153 May 09 00:09	0°Y			4158 Sep 23 21:29	0°J	
	4153 Jun 17 11:43	0°B			4158 Nov 08 05:28	0°C	
	4153 Jul 27 17:45	0°II			4158 Dec 19 20:53	0°X	
	4153 Sep 08 20:48	0°S			4159 Jan 28 05:13	0°X	
asc. node	4153 Oct 14 06:27	21°S14'23		evening set	4159 Feb 28 07:16	24°X24'29	
	4153 Nov 01 06:22	0°Q			4159 Mar 07 08:54	0°Y	
retrograde	4153 Dec 12 23:20	10°Q11'44			4159 Apr 14 08:18	0°B	
min. Earth dist.	4154 Jan 14 00:42	3°Q12'43	0.55845 AU				
greatest brilliancy	4154 Jan 19 10:36	1°Q07'06	-1.8m	conjunction	4159 May 08 08:06	18°B42'05	0°-19'-26
opposition	4154 Jan 20 20:26	0°Q34'13	4°07'03	minimum elong	4159 May 08 09:57	18°B45'41	0°19'26
	4154 Jan 22 07:52	30°R5			4159 May 23 01:23	0°II	
direct	4154 Feb 25 23:14	22°S25'30		asc. node	4159 Jun 06 03:16	10°II39'28	
	4154 Apr 05 04:37	0°Q		max. Earth dist.	4159 Jun 29 07:20	27°II50'01	2.42671 AU
	4154 Jun 08 12:57	0°P			4159 Jul 02 06:33	0°S	
	4154 Jul 31 07:27	0°A		morning rise	4159 Jul 14 04:40	8°S37'11	
	4154 Sep 18 11:26	0°M			4159 Aug 13 13:44	0°Q	
desc. node	4154 Oct 24 21:12	23°M21'35			4159 Sep 27 08:35	0°P	
	4154 Nov 03 22:47	0°J			4159 Nov 14 05:17	0°A	
evening set	4154 Nov 12 07:24	5°J34'36			4160 Jan 06 11:18	0°M	
max. Earth dist.	4154 Nov 28 21:11	16°J48'34	2.53907 AU	retrograde	4160 Mar 28 23:36	26°M53'12	
	4154 Dec 17 22:08	0°C		opposition	4160 May 06 21:03	18°M00'09	1°28'27
				greatest brilliancy	4160 May 07 05:45	17°M51'43	-1.4m
conjunction	4154 Dec 31 02:54	9°C19'42	0°-36'-40	min. Earth dist.	4160 May 11 11:38	16°M13'04	0.64111 AU
minimum elong	4154 Dec 31 01:31	9°C17'14	0°36'39	desc. node	4160 Jun 15 17:48	7°M59'41	
	4155 Jan 28 15:47	0°X		direct	4160 Jun 17 08:22	7°M58'41	
morning rise	4155 Feb 22 08:22	18°X24'22			4160 Aug 26 08:32	0°J	
	4155 Mar 09 14:56	0°X			4160 Oct 15 15:56	0°C	
	4155 Apr 17 10:42	0°Y			4160 Nov 27 16:45	0°X	
	4155 May 25 21:57	0°B			4161 Jan 06 12:28	0°X	
	4155 Jul 03 22:27	0°II			4161 Feb 13 21:46	0°Y	
	4155 Aug 13 13:59	0°S			4161 Mar 24 03:05	0°B	
asc. node	4155 Sep 01 05:04	13°S06'18		asc. node	4161 Apr 23 01:33	23°B05'19	
	4155 Sep 26 10:01	0°Q			4161 May 02 04:17	0°II	
	4155 Nov 16 12:31	0°P		evening set	4161 May 10 03:37	5°II59'43	
retrograde	4156 Jan 19 13:47	19°P36'33			4161 Jun 11 19:03	0°S	
min. Earth dist.	4156 Feb 25 16:54	10°P52'58	0.65072 AU				
opposition	4156 Feb 28 18:42	9°P39'08	4°37'10	conjunction	4161 Jul 09 17:45	19°S50'19	0°45'44
greatest brilliancy	4156 Feb 28 02:15	9°P55'36	-1.3m	minimum elong	4161 Jul 09 15:44	19°S46'48	0°45'42
direct	4156 Apr 08 01:22	0°P21'36			4161 Jul 24 09:54	0°Q	
	4156 Jul 05 19:12	0°A		max. Earth dist.	4161 Aug 10 22:59	11°Q56'15	2.55789 AU
	4156 Aug 28 03:45	0°M		morning rise	4161 Sep 01 12:30	26°Q18'37	
desc. node	4156 Sep 10 19:47	8°M19'16			4161 Sep 07 03:07	0°P	
	4156 Oct 14 21:35	0°J			4161 Oct 23 20:24	0°A	
	4156 Nov 28 01:31	0°C			4161 Dec 11 16:07	0°M	
evening set	4156 Dec 27 10:06	21°C05'01			4162 Feb 02 00:34	0°J	
	4157 Jan 08 11:50	0°X			4162 Apr 09 23:25	0°C	
max. Earth dist.	4157 Jan 14 21:17	4°X46'32	2.41028 AU	desc. node	4162 May 03 16:47	4°C53'53	

retrograde	4162 May 11 20:34	5°☾17'12		evening set	4167 Sep 21 18:49	15°♊16'12	
	4162 Jun 10 06:12	30°♊18			4167 Oct 14 22:48	0°♊	
opposition	4162 Jun 16 22:48	27°♊39'18	-1°-54'-43	max. Earth dist.	4167 Oct 23 05:01	5°♊17'47	2.65613 AU
greatest brilliancy	4162 Jun 17 17:58	27°♊21'53	-1.9m				
min. Earth dist.	4162 Jun 24 19:10	24°♊48'12	0.54139 AU	conjunction	4167 Nov 05 21:50	14°♊08'33	0°25'58
direct	4162 Jul 26 14:15	18°♊22'05		minimum elong	4167 Nov 05 22:36	14°♊09'48	0°25'58
	4162 Sep 10 04:59	0°☾			4167 Nov 30 03:40	0°♊	
	4162 Nov 01 11:15	0°♊		morning rise	4167 Dec 20 16:15	13°♊39'14	
	4162 Dec 13 20:34	0°♊		desc. node	4167 Dec 24 12:57	16°♊14'59	
	4163 Jan 22 12:02	0°♊			4168 Jan 13 19:16	0°☾	
	4163 Mar 02 15:34	0°♊			4168 Feb 25 20:11	0°♊	
asc. node	4163 Mar 11 00:27	6°♊21'44			4168 Apr 07 10:47	0°♊	
	4163 Apr 11 13:36	0°♊			4168 May 18 00:24	0°♊	
	4163 May 23 00:34	0°☾			4168 Jun 27 07:38	0°♊	
evening set	4163 Jul 04 20:17	29°☾38'21			4168 Aug 07 20:36	0°♊	
	4163 Jul 05 09:04	0°♊			4168 Sep 23 13:47	0°☾	
	4163 Aug 19 13:07	0°♊		asc. node	4168 Oct 30 22:12	17°☾10'28	
				retrograde	4168 Nov 25 22:50	21°☾38'10	
conjunction	4163 Aug 24 19:16	3°♊25'30	1°07'57	min. Earth dist.	4168 Dec 25 17:49	15°☾30'02	0.50825 AU
minimum elong	4163 Aug 24 19:04	3°♊25'09	1°07'57	greatest brilliancy	4169 Jan 01 08:11	13°☾03'01	-2.1m
max. Earth dist.	4163 Sep 07 16:56	12°♊25'48	2.64493 AU	opposition	4169 Jan 02 16:45	12°☾32'36	3°10'48
	4163 Oct 05 02:59	0°♊		direct	4169 Feb 06 04:04	5°☾04'29	
morning rise	4163 Oct 10 16:02	3°♊31'40			4169 Apr 24 08:05	0°♊	
	4163 Nov 21 14:31	0°♊			4169 Jun 18 09:24	0°♊	
	4164 Jan 08 18:36	0°♊			4169 Aug 08 02:55	0°♊	
	4164 Feb 27 03:17	0°☾			4169 Sep 25 13:34	0°♊	
desc. node	4164 Mar 20 15:29	13°☾10'50		evening set	4169 Oct 27 20:37	20°♊46'38	
	4164 Apr 20 00:09	0°♊		desc. node	4169 Nov 10 11:55	29°♊45'51	
retrograde	4164 Jul 12 13:23	28°♊28'39			4169 Nov 10 20:27	0°♊	
opposition	4164 Aug 13 00:51	22°♊54'35	-6°-11'-34	max. Earth dist.	4169 Nov 16 23:31	4°♊04'55	2.58154 AU
greatest brilliancy	4164 Aug 15 00:22	22°♊19'19	-2.6m				
min. Earth dist.	4164 Aug 20 00:56	20°♊50'38	0.41052 AU	conjunction	4169 Dec 13 20:05	22°♊18'29	0°-18'-39
direct	4164 Sep 15 15:24	16°♊23'44		minimum elong	4169 Dec 13 19:23	22°♊17'17	0°18'40
	4164 Nov 02 15:53	0°♊			4169 Dec 24 22:22	0°☾	
	4164 Dec 22 12:56	0°♊		morning rise	4170 Feb 01 07:28	27°☾21'28	
asc. node	4165 Jan 26 00:23	23°♊46'27			4170 Feb 04 22:26	0°♊	
	4165 Feb 03 20:36	0°♊			4170 Mar 17 05:38	0°♊	
	4165 Mar 18 10:49	0°♊			4170 Apr 25 09:16	0°♊	
	4165 Apr 30 21:27	0°☾			4170 Jun 03 03:15	0°♊	
	4165 Jun 14 17:36	0°♊			4170 Jul 12 10:38	0°♊	
	4165 Jul 30 21:37	0°♊			4170 Aug 22 14:03	0°☾	
evening set	4165 Aug 15 12:03	9°♊59'39		asc. node	4170 Sep 17 21:53	17°☾56'22	
	4165 Sep 15 21:47	0°♊			4170 Oct 06 20:59	0°♊	
					4170 Dec 06 02:30	0°♊	
conjunction	4165 Sep 30 20:31	9°♊29'59	0°57'37	retrograde	4171 Jan 05 16:08	5°♊31'13	
minimum elong	4165 Sep 30 21:30	9°♊31'34	0°57'37		4171 Feb 03 03:09	30°♊00	
max. Earth dist.	4165 Sep 30 00:33	8°♊58'16	2.67782 AU	min. Earth dist.	4171 Feb 09 23:23	27°♊23'50	0.62188 AU
	4165 Nov 02 01:28	0°♊		opposition	4171 Feb 14 13:25	25°♊34'15	4°39'55
morning rise	4165 Nov 14 02:07	7°♊41'09		greatest brilliancy	4171 Feb 13 12:41	25°♊58'56	-1.5m
	4165 Dec 18 18:35	0°♊		direct	4171 Mar 24 18:16	16°♊38'42	
	4166 Feb 02 18:30	0°☾			4171 May 17 17:35	0°♊	
desc. node	4166 Feb 05 14:32	1°☾51'54			4171 Jul 16 22:26	0°♊	
	4166 Mar 20 01:34	0°♊			4171 Sep 06 01:45	0°♊	
	4166 May 03 23:13	0°♊		desc. node	4171 Sep 28 11:14	13°♊59'47	
	4166 Jun 18 10:26	0°♊			4171 Oct 23 04:10	0°♊	
	4166 Aug 07 18:59	0°♊			4171 Dec 06 05:00	0°☾	
retrograde	4166 Oct 01 00:38	16°♊32'34		evening set	4171 Dec 09 00:15	1°☾58'26	
min. Earth dist.	4166 Oct 27 16:41	12°♊05'51	0.38519 AU	max. Earth dist.	4171 Dec 23 03:47	12°☾03'15	2.46199 AU
greatest brilliancy	4166 Nov 01 08:57	10°♊44'56	-2.8m		4172 Jan 16 17:18	0°♊	
opposition	4166 Nov 02 00:36	10°♊33'35	-2°-52'-25				
direct	4166 Dec 01 21:15	5°♊20'58		conjunction	4172 Jan 31 14:31	11°♊07'42	0°-59'-35
asc. node	4166 Dec 13 23:46	6°♊18'16		minimum elong	4172 Jan 31 13:00	11°♊04'51	0°59'35
	4167 Feb 12 13:05	0°♊			4172 Feb 25 08:21	0°♊	
	4167 Apr 05 07:02	0°☾		morning rise	4172 Apr 02 18:05	29°♊09'10	
	4167 May 24 01:43	0°♊			4172 Apr 03 19:58	0°♊	
	4167 Jul 11 09:45	0°♊		greatest brilliancy	4172 May 03 23:10	23°♊41'35	1.2m
	4167 Aug 28 12:27	0°♊			4172 May 12 00:12	0°♊	

	4172 Jun 19 18:21	0°♊	direct	4177 Jul 10 10:44	1°♌34'40	
	4172 Jul 30 00:08	0°♋		4177 Sep 27 11:36	0°♎	
asc. node	4172 Aug 04 20:49	4°♋14'25		4177 Nov 12 14:25	0°♏	
	4172 Sep 10 17:55	0°♎		4177 Dec 23 11:45	0°♐	
	4172 Oct 27 15:46	0°♏		4178 Jan 31 10:28	0°♑	
	4172 Dec 24 13:29	0°♐		4178 Mar 11 02:00	0°♒	
retrograde	4173 Feb 08 14:40	10°♐44'10	asc. node	4178 Mar 27 18:23	12°♒47'43	
opposition	4173 Mar 20 21:57	0°♐56'17 4°07'30		4178 Apr 19 13:12	0°♊	
min. Earth dist.	4173 Mar 20 04:48	1°♐13'25 0.67588 AU		4178 May 30 13:58	0°♋	
greatest brilliancy	4173 Mar 20 18:06	1°♐00'08 -1.2m	evening set	4178 Jun 15 03:55	11°♋02'23	
	4173 Mar 23 06:26	30°♒♏		4178 Jul 12 13:26	0°♎	
direct	4173 Apr 30 11:01	21°♏13'41				
	4173 Jun 11 21:42	0°♐	conjunction	4178 Aug 08 05:38	17°♎57'45 1°04'00	
	4173 Aug 13 11:31	0°♑	minimum elong	4178 Aug 08 04:38	17°♎56'05 1°03'59	
desc. node	4173 Aug 15 10:03	1°♑05'32		4178 Aug 26 11:23	0°♏	
	4173 Oct 02 04:09	0°♌	max. Earth dist.	4178 Aug 28 16:47	1°♏27'25 2.61690 AU	
	4173 Nov 15 21:31	0°♍	morning rise	4178 Sep 26 04:36	19°♏54'11	
	4173 Dec 27 09:25	0°♎		4178 Oct 12 00:17	0°♐	
evening set	4174 Feb 01 08:13	27°♎21'42		4178 Nov 28 20:00	0°♑	
	4174 Feb 04 17:49	0°♏		4179 Jan 17 01:58	0°♌	
	4174 Mar 14 22:06	0°♑		4179 Mar 10 08:24	0°♍	
			desc. node	4179 Apr 07 06:19	14°♍22'48	
conjunction	4174 Apr 08 18:04	19°♑38'55 0°46'47		4179 May 15 18:53	0°♎	
minimum elong	4174 Apr 08 21:30	19°♑45'41 0°46'47	retrograde	4179 Jun 15 20:54	5°♎09'41	
	4174 Apr 21 21:13	0°♒		4179 Jul 15 08:29	30°♒♎	
max. Earth dist.	4174 May 18 00:22	20°♒22'45 2.37711 AU	opposition	4179 Jul 19 08:09	28°♒42'31 -4°-38'-6	
	4174 May 30 12:54	0°♊	greatest brilliancy	4179 Jul 21 05:15	28°♒05'10 -2.3m	
morning rise	4174 Jun 18 21:15	14°♊38'04	min. Earth dist.	4179 Jul 27 17:51	25°♒56'50 0.45998 AU	
asc. node	4174 Jun 22 18:45	17°♊32'36	direct	4179 Aug 24 21:22	20°♒49'17	
	4174 Jul 09 16:08	0°♋		4179 Oct 02 16:00	0°♏	
	4174 Aug 20 22:35	0°♎		4179 Nov 24 06:04	0°♐	
	4174 Oct 04 22:42	0°♏		4180 Jan 05 20:24	0°♑	
	4174 Nov 22 19:21	0°♐	asc. node	4180 Feb 12 16:40	27°♑50'14	
	4175 Jan 19 19:46	0°♑		4180 Feb 15 15:05	0°♒	
retrograde	4175 Mar 15 10:17	13°♑48'04		4180 Mar 27 17:43	0°♊	
opposition	4175 Apr 23 23:00	4°♑35'03 2°25'28		4180 May 09 03:47	0°♋	
greatest brilliancy	4175 Apr 24 08:00	4°♑26'13 -1.3m		4180 Jun 22 06:13	0°♎	
min. Earth dist.	4175 Apr 27 02:12	3°♑21'19 0.66391 AU	evening set	4180 Jul 30 20:30	25°♎24'12	
	4175 May 06 00:50	30°♒♐		4180 Aug 06 22:30	0°♏	
direct	4175 Jun 04 11:29	24°♐32'38				
desc. node	4175 Jul 03 08:30	29°♐04'01	conjunction	4180 Sep 16 13:01	26°♏04'31 1°04'38	
	4175 Jul 06 10:59	0°♑	minimum elong	4180 Sep 16 13:43	26°♏05'38 1°04'38	
	4175 Sep 08 07:44	0°♌	max. Earth dist.	4180 Sep 21 06:37	29°♏05'35 2.67132 AU	
	4175 Oct 25 18:11	0°♍		4180 Sep 22 16:47	0°♐	
	4175 Dec 07 00:47	0°♎	morning rise	4180 Oct 31 10:05	24°♐37'01	
	4176 Jan 15 13:54	0°♏		4180 Nov 08 21:26	0°♑	
	4176 Feb 22 19:33	0°♑		4180 Dec 26 00:36	0°♌	
	4176 Mar 31 21:05	0°♒		4181 Feb 10 22:51	0°♍	
evening set	4176 Apr 13 05:04	9°♒37'08	desc. node	4181 Feb 22 05:03	7°♒12'09	
asc. node	4176 May 09 18:38	0°♊01'56		4181 Mar 29 23:23	0°♎	
	4176 May 09 17:37	0°♊		4181 May 17 03:12	0°♏	
				4181 Jul 10 03:12	0°♑	
conjunction	4176 Jun 17 15:12	28°♊54'50 0°25'08	retrograde	4181 Aug 31 19:32	14°♑42'39	
minimum elong	4176 Jun 17 13:28	28°♊51'40 0°25'06	opposition	4181 Sep 30 22:24	9°♑42'25 -5°-44'-42	
	4176 Jun 19 03:06	0°♋	greatest brilliancy	4181 Oct 01 01:42	9°♑40'14 -2.9m	
max. Earth dist.	4176 Jul 28 12:56	27°♋55'19 2.51022 AU	min. Earth dist.	4181 Sep 30 16:05	9°♑46'35 0.37038 AU	
	4176 Jul 31 13:10	0°♎	direct	4181 Oct 30 11:21	4°♑47'34	
morning rise	4176 Aug 14 21:28	9°♎48'21	asc. node	4181 Dec 30 15:36	24°♑17'11	
	4176 Sep 14 04:44	0°♏		4182 Jan 10 02:32	0°♒	
	4176 Oct 31 04:02	0°♐		4182 Feb 28 08:37	0°♊	
	4176 Dec 20 01:12	0°♑		4182 Apr 15 22:57	0°♋	
	4177 Feb 14 10:47	0°♌		4182 Jun 01 14:50	0°♎	
retrograde	4177 Apr 23 07:59	19°♌31'15		4182 Jul 18 21:05	0°♏	
desc. node	4177 May 20 07:22	15°♌00'09		4182 Sep 04 10:53	0°♐	
opposition	4177 May 30 17:52	11°♌18'52 0°-25'-36	evening set	4182 Sep 07 13:17	1°♐57'26	
greatest brilliancy	4177 May 30 21:37	11°♌15'21 -1.6m	max. Earth dist.	4182 Oct 13 23:56	25°♐04'20 2.67107 AU	
min. Earth dist.	4177 Jun 06 11:20	8°♌47'09 0.58709 AU		4182 Oct 21 17:02	0°♑	

conjunction	4182 Oct 22 19:47	0° \mathbb{M} 42'48	0°40'14	retrograde	4188 Jan 27 08:21	27° \mathbb{M} 47'38	
minimum elong	4182 Oct 22 20:48	0° \mathbb{M} 44'26	0°40'14	min. Earth dist.	4188 Mar 05 09:32	18° \mathbb{M} 45'56	0.66255 AU
morning rise	4182 Dec 06 00:06	29° \mathbb{M} 19'02		opposition	4188 Mar 07 15:09	17° \mathbb{M} 52'15	4°29'34
	4182 Dec 07 01:05	0° \mathbb{Z}		greatest brilliancy	4188 Mar 07 03:21	18° \mathbb{M} 04'04	-1.3m
desc. node	4183 Jan 10 04:06	22° \mathbb{Z} 38'15		direct	4188 Apr 16 09:51	8° \mathbb{M} 24'34	
	4183 Jan 21 02:31	0° \mathbb{Z}			4188 Jun 27 23:49	0° \mathbb{L}	
	4183 Mar 05 19:34	0° \approx			4188 Aug 22 13:16	0° \mathbb{M}	
	4183 Apr 17 07:34	0° \mathbb{H}		desc. node	4188 Sep 01 00:26	5° \mathbb{M} 37'52	
	4183 May 28 23:41	0° \mathbb{Y}			4188 Oct 09 21:50	0° \mathbb{Z}	
	4183 Jul 09 19:08	0° \mathbb{B}			4188 Nov 23 06:39	0° \mathbb{Z}	
	4183 Aug 23 09:43	0° \mathbb{II}			4189 Jan 03 17:57	0° \approx	
retrograde	4183 Nov 07 12:44	29° \mathbb{II} 47'34		evening set	4189 Jan 08 12:21	3° \approx 33'30	
asc. node	4183 Nov 17 15:25	29° \mathbb{II} 02'23		max. Earth dist.	4189 Feb 04 15:10	24° \approx 09'52	2.38496 AU
min. Earth dist.	4183 Dec 05 04:45	24° \mathbb{II} 31'56	0.45447 AU		4189 Feb 12 04:25	0° \mathbb{H}	
opposition	4183 Dec 13 13:28	21° \mathbb{II} 38'12	1°31'24				
greatest brilliancy	4183 Dec 12 18:56	21° \mathbb{II} 54'18	-2.4m	conjunction	4189 Mar 10 15:44	20° \mathbb{H} 41'37	-1°-2'-41
direct	4184 Jan 15 02:47	15° \mathbb{II} 01'00		minimum elong	4189 Mar 10 17:17	20° \mathbb{H} 44'40	1°02'42
	4184 Mar 10 10:16	0° \mathbb{S}			4189 Mar 22 11:04	0° \mathbb{Y}	
	4184 May 06 21:03	0° \mathbb{Q}			4189 Apr 29 11:24	0° \mathbb{B}	
	4184 Jun 27 03:42	0° \mathbb{M}		morning rise	4189 May 20 13:37	16° \mathbb{B} 28'35	
	4184 Aug 15 13:46	0° \mathbb{L}			4189 Jun 07 02:50	0° \mathbb{II}	
	4184 Oct 02 12:27	0° \mathbb{M}		asc. node	4189 Jul 09 12:44	24° \mathbb{II} 21'30	
evening set	4184 Oct 13 03:26	6° \mathbb{M} 47'30			4189 Jul 17 05:16	0° \mathbb{S}	
max. Earth dist.	4184 Nov 06 09:47	22° \mathbb{M} 32'11	2.61681 AU		4189 Aug 28 12:46	0° \mathbb{Q}	
	4184 Nov 17 17:22	0° \mathbb{Z}			4189 Oct 12 22:29	0° \mathbb{M}	
					4189 Dec 02 11:54	0° \mathbb{L}	
conjunction	4184 Nov 27 23:13	6° \mathbb{Z} 49'37	0°00'-28		4190 Feb 15 19:24	0° \mathbb{M}	
minimum elong	4184 Nov 27 23:13	6° \mathbb{Z} 49'37	0°00'28	retrograde	4190 Mar 01 15:08	1° \mathbb{M} 07'00	
behind sun begin	4184 Nov 27 03:55	6° \mathbb{Z} 17'20			4190 Mar 14 19:32	30° \mathbb{R} \mathbb{L}	
behind sun end	4184 Nov 28 18:31	7° \mathbb{Z} 21'55		opposition	4190 Apr 10 14:21	21° \mathbb{L} 37'42	3°12'24
desc. node	4184 Nov 27 03:13	6° \mathbb{Z} 16'10		greatest brilliancy	4190 Apr 10 20:06	21° \mathbb{L} 32'00	-1.2m
	4184 Dec 31 23:23	0° \mathbb{Z}		min. Earth dist.	4190 Apr 12 05:35	20° \mathbb{L} 58'51	0.67643 AU
morning rise	4185 Jan 13 22:14	9° \mathbb{Z} 02'29		direct	4190 May 21 21:45	11° \mathbb{L} 39'39	
	4185 Feb 12 07:29	0° \approx		desc. node	4190 Jul 19 23:06	27° \mathbb{L} 25'06	
	4185 Mar 25 00:30	0° \mathbb{H}			4190 Jul 25 13:27	0° \mathbb{M}	
	4185 May 03 14:12	0° \mathbb{Y}			4190 Sep 18 02:14	0° \mathbb{Z}	
	4185 Jun 11 17:53	0° \mathbb{B}			4190 Nov 03 01:24	0° \mathbb{Z}	
	4185 Jul 21 12:54	0° \mathbb{II}			4190 Dec 14 21:51	0° \approx	
	4185 Sep 01 15:16	0° \mathbb{S}			4191 Jan 23 07:44	0° \mathbb{H}	
asc. node	4185 Oct 04 13:23	21° \mathbb{S} 06'24			4191 Mar 02 11:56	0° \mathbb{Y}	
	4185 Oct 20 05:27	0° \mathbb{Q}		evening set	4191 Mar 16 10:14	11° \mathbb{Y} 01'34	
retrograde	4185 Dec 21 22:59	20° \mathbb{Q} 11'11			4191 Apr 09 11:37	0° \mathbb{B}	
min. Earth dist.	4186 Jan 24 05:33	12° \mathbb{Q} 45'37	0.58364 AU		4191 May 18 05:13	0° \mathbb{II}	
greatest brilliancy	4186 Jan 28 22:56	10° \mathbb{Q} 54'19	-1.7m				
opposition	4186 Jan 30 06:31	10° \mathbb{Q} 23'12	4°25'45	conjunction	4191 May 24 03:34	4° \mathbb{II} 30'16	0°-2'-16
direct	4186 Mar 08 04:24	1° \mathbb{Q} 55'41		minimum elong	4191 May 24 03:44	4° \mathbb{II} 30'35	0°02'18
	4186 Jun 01 03:52	0° \mathbb{M}		behind sun begin	4191 May 22 23:40	3° \mathbb{II} 37'27	
	4186 Jul 25 19:06	0° \mathbb{L}		behind sun end	4191 May 25 07:48	5° \mathbb{II} 23'40	
	4186 Sep 13 13:44	0° \mathbb{M}		asc. node	4191 May 27 11:04	7° \mathbb{II} 00'31	
desc. node	4186 Oct 15 02:08	20° \mathbb{M} 02'48			4191 Jun 27 11:05	0° \mathbb{S}	
	4186 Oct 30 06:29	0° \mathbb{Z}		max. Earth dist.	4191 Jul 12 03:48	10° \mathbb{S} 36'26	2.45723 AU
evening set	4186 Nov 21 12:57	14° \mathbb{Z} 57'42		morning rise	4191 Jul 26 20:47	21° \mathbb{S} 01'36	
max. Earth dist.	4186 Dec 06 16:40	25° \mathbb{Z} 23'52	2.51319 AU		4191 Aug 08 18:01	0° \mathbb{Q}	
	4186 Dec 13 06:52	0° \mathbb{Z}			4191 Sep 22 10:03	0° \mathbb{M}	
					4191 Nov 08 19:48	0° \mathbb{L}	
conjunction	4187 Jan 10 17:40	20° \mathbb{Z} 18'53	0°-46'-13		4191 Dec 30 10:02	0° \mathbb{M}	
minimum elong	4187 Jan 10 16:01	20° \mathbb{Z} 15'54	0°46'12		4192 Mar 06 07:42	0° \mathbb{Z}	
	4187 Jan 23 23:06	0° \approx		retrograde	4192 Apr 06 19:11	5° \mathbb{Z} 09'42	
	4187 Mar 04 19:32	0° \mathbb{H}			4192 May 05 15:30	30° \mathbb{R} \mathbb{M}	
morning rise	4187 Mar 07 16:58	2° \mathbb{H} 13'09		opposition	4192 May 15 05:25	26° \mathbb{M} 29'36	0°49'57
	4187 Apr 12 12:17	0° \mathbb{Y}		greatest brilliancy	4192 May 15 11:30	26° \mathbb{M} 23'45	-1.5m
	4187 May 20 20:20	0° \mathbb{B}		min. Earth dist.	4192 May 20 14:38	24° \mathbb{M} 25'29	0.62451 AU
	4187 Jun 28 17:17	0° \mathbb{II}		desc. node	4192 Jun 05 22:00	19° \mathbb{M} 02'45	
	4187 Aug 08 03:17	0° \mathbb{S}		direct	4192 Jun 25 12:21	16° \mathbb{M} 31'34	
asc. node	4187 Aug 22 12:50	10° \mathbb{S} 16'08			4192 Aug 16 08:53	0° \mathbb{Z}	
	4187 Sep 20 09:14	0° \mathbb{Q}			4192 Oct 09 06:20	0° \mathbb{Z}	
	4187 Nov 08 05:59	0° \mathbb{M}			4192 Nov 22 02:52	0° \approx	

	4193 Jan 01 05:56	0° H		morning rise	4197 Nov 21 22:36	15° M 42'12	
	4193 Feb 08 19:03	0° Y			4197 Dec 14 00:43	0° X	
	4193 Mar 19 02:53	0° B		desc. node	4198 Jan 26 19:18	28° X 46'09	
asc. node	4193 Apr 13 10:03	19° B 29'59			4198 Jan 28 15:46	0° C	
	4193 Apr 27 06:21	0° II			4198 Mar 14 07:18	0° \approx	
evening set	4193 May 23 23:48	19° II 50'57			4198 Apr 27 03:20	0° H	
	4193 Jun 06 23:27	0° S			4198 Jun 09 17:27	0° Y	
	4193 Jul 19 16:04	0° Q			4198 Jul 24 23:18	0° B	
					4198 Sep 22 10:34	0° II	
conjunction	4193 Jul 21 00:51	0° Q 56'10	0°54'19	retrograde	4198 Oct 15 18:38	3° II 42'49	
minimum elong	4193 Jul 20 23:05	0° Q 53'09	0°54'17		4198 Nov 08 07:18	30° R B	
max. Earth dist.	4193 Aug 17 20:07	19° Q 42'28	2.58108 AU	min. Earth dist.	4198 Nov 11 05:51	29° B 07'56	0.40522 AU
	4193 Sep 02 09:52	0° M		opposition	4198 Nov 18 08:54	26° B 55'03	-1°-3'-37
morning rise	4193 Sep 10 20:00	5° M 30'32		greatest brilliancy	4198 Nov 17 23:25	27° B 02'26	-2.7m
	4193 Oct 19 00:05	0° A		asc. node	4198 Dec 04 06:49	22° B 42'08	
	4193 Dec 06 08:38	0° M		direct	4198 Dec 18 23:25	21° B 14'51	
	4194 Jan 26 06:02	0° X			4199 Jan 27 17:06	0° II	
	4194 Mar 25 10:33	0° C			4199 Mar 28 08:33	0° S	
desc. node	4194 Apr 23 20:58	10° C 59'24			4199 May 18 01:32	0° Q	
retrograde	4194 May 23 14:13	15° C 39'33			4199 Jul 06 05:36	0° M	
opposition	4194 Jun 27 19:27	8° C 24'19	-2°-52'-9		4199 Aug 23 17:56	0° A	
greatest brilliancy	4194 Jun 29 00:50	7° C 58'15	-2.0m	evening set	4199 Sep 29 21:23	23° A 20'41	
min. Earth dist.	4194 Jul 06 01:16	5° C 29'22	0.51326 AU		4199 Oct 10 08:15	0° M	
	4194 Jul 28 04:16	30° R X		max. Earth dist.	4199 Oct 28 15:45	11° M 45'58	2.64442 AU
direct	4194 Aug 05 13:12	29° X 30'26					
	4194 Aug 14 01:54	0° C		conjunction	4199 Nov 14 02:54	22° M 28'50	0°16'43
	4194 Oct 24 00:37	0° \approx		minimum elong	4199 Nov 14 03:26	22° M 29'43	0°16'43
	4194 Dec 07 04:12	0° H			4199 Nov 25 13:14	0° X	
	4195 Jan 16 12:39	0° Y		desc. node	4199 Dec 14 17:54	12° X 47'36	
	4195 Feb 25 02:19	0° B		morning rise	4199 Dec 29 10:58	22° X 44'42	
asc. node	4195 Mar 01 09:50	3° B 15'20			4200 Jan 09 01:24	0° C	
	4195 Apr 06 07:47	0° II			4200 Feb 20 20:18	0° \approx	
	4195 May 18 00:55	0° S			4200 Apr 03 02:39	0° H	
	4195 Jun 30 14:01	0° Q			4200 May 13 06:43	0° Y	
evening set	4195 Jul 15 01:39	9° Q 42'30			4200 Jun 22 01:43	0° B	
	4195 Aug 14 21:12	0° M			4200 Aug 01 17:47	0° II	
					4200 Sep 14 21:03	0° S	
conjunction	4195 Sep 02 16:05	12° M 10'29	1°07'57	asc. node	4200 Oct 22 07:19	20° S 51'08	
minimum elong	4195 Sep 02 16:16	12° M 10'45	1°07'57		4200 Nov 15 17:50	0° Q	
max. Earth dist.	4195 Sep 13 05:07	18° M 57'16	2.65665 AU	retrograde	4200 Dec 06 21:56	2° Q 57'49	
	4195 Sep 30 11:39	0° A			4200 Dec 27 01:26	30° R S	
morning rise	4195 Oct 18 16:07	11° A 33'44		min. Earth dist.	4201 Jan 06 22:58	26° S 20'37	0.53661 AU
	4195 Nov 16 19:51	0° M		greatest brilliancy	4201 Jan 12 20:59	24° S 05'13	-1.9m
	4196 Jan 03 13:17	0° X		opposition	4201 Jan 14 07:31	23° S 32'07	3°47'53
	4196 Feb 20 19:52	0° C		direct	4201 Feb 18 16:58	15° S 40'26	
desc. node	4196 Mar 10 20:27	11° C 36'57			4201 Apr 14 20:37	0° Q	
	4196 Apr 10 18:36	0° \approx			4201 Jun 13 02:06	0° M	
	4196 Jun 06 11:14	0° H			4201 Aug 03 22:01	0° A	
retrograde	4196 Jul 30 05:38	14° H 14'47			4201 Sep 21 18:58	0° M	
opposition	4196 Aug 29 16:39	9° H 05'41	-6°-37'-43	desc. node	4201 Nov 01 16:46	26° M 20'38	
greatest brilliancy	4196 Aug 31 06:20	8° H 39'22	-2.8m	evening set	4201 Nov 06 13:19	29° M 33'10	
min. Earth dist.	4196 Sep 03 17:50	7° H 41'16	0.38866 AU		4201 Nov 07 05:31	0° X	
direct	4196 Sep 30 14:00	3° H 21'19		max. Earth dist.	4201 Nov 24 15:58	11° X 40'57	2.55895 AU
	4196 Dec 11 12:18	0° Y			4201 Dec 21 07:06	0° C	
asc. node	4197 Jan 16 07:41	22° Y 48'25					
	4197 Jan 27 01:17	0° B		conjunction	4201 Dec 24 10:44	2° C 12'22	0°-29'-10
	4197 Mar 12 00:52	0° II		minimum elong	4201 Dec 24 09:38	2° C 10'26	0°29'10
	4197 Apr 25 06:58	0° S			4202 Feb 01 04:37	0° \approx	
	4197 Jun 09 15:14	0° Q		morning rise	4202 Feb 13 19:31	9° \approx 18'44	
	4197 Jul 26 02:55	0° M			4202 Mar 13 07:54	0° H	
evening set	4197 Aug 24 00:55	18° M 24'59			4202 Apr 21 07:28	0° Y	
	4197 Sep 11 06:58	0° A			4202 May 29 21:25	0° B	
max. Earth dist.	4197 Oct 05 03:58	15° A 09'26	2.67781 AU		4202 Jul 07 23:51	0° II	
					4202 Aug 17 18:30	0° S	
conjunction	4197 Oct 08 20:48	17° A 30'37	0°52'02	asc. node	4202 Sep 09 06:15	15° S 39'51	
minimum elong	4197 Oct 08 21:52	17° A 32'18	0°52'02		4202 Oct 01 00:04	0° Q	
	4197 Oct 28 11:04	0° M			4202 Nov 23 06:54	0° M	

retrograde	4203 Jan 14 17:38	14° \cap 10'12			4208 Mar 27 22:33	0° δ	
min. Earth dist.	4203 Feb 20 01:15	5° \cap 42'11	0.63898 AU	evening set	4208 Apr 29 17:58	25° δ 21'01	
opposition	4203 Feb 23 19:20	4° \cap 12'06	4°40'15	asc. node	4208 May 01 02:50	26° δ 23'37	
greatest brilliancy	4203 Feb 22 23:05	4° \cap 32'22	-1.4m		4208 May 05 20:47	0° Π	
	4203 Mar 06 21:58	30° \mathbb{R} Ω			4208 Jun 15 08:05	0° \mathfrak{S}	
direct	4203 Apr 03 14:30	25° Ω 03'54					
	4203 May 04 07:16	0° \cap		conjunction	4208 Jul 01 12:26	11° \mathfrak{S} 36'34	0°37'49
	4203 Jul 11 10:38	0° $\underline{\mathfrak{A}}$		minimum elong	4208 Jul 01 10:22	11° \mathfrak{S} 32'53	0°37'48
	4203 Sep 01 19:47	0° \mathbb{M}			4208 Jul 27 19:21	0° Ω	
desc. node	4203 Sep 19 15:28	10° \mathbb{M} 57'59		max. Earth dist.	4208 Aug 06 13:10	6° Ω 40'31	2.53740 AU
	4203 Oct 19 08:20	0° \mathfrak{X}		morning rise	4208 Aug 26 03:32	19° Ω 53'13	
	4203 Dec 02 12:18	0° \mathfrak{Z}			4208 Sep 10 10:21	0° \cap	
evening set	4203 Dec 20 17:10	12° \mathfrak{Z} 56'46			4208 Oct 27 04:28	0° $\underline{\mathfrak{A}}$	
max. Earth dist.	4204 Jan 05 04:54	24° \mathfrak{Z} 13'06	2.43318 AU		4208 Dec 15 08:34	0° \mathbb{M}	
	4204 Jan 13 00:44	0° \approx			4209 Feb 07 00:12	0° \mathfrak{X}	
				retrograde	4209 May 04 13:22	28° \mathfrak{X} 44'43	
conjunction	4204 Feb 14 16:27	24° \approx 40'43	-1°-4'00	desc. node	4209 May 11 12:32	28° \mathfrak{X} 26'39	
minimum elong	4204 Feb 14 15:36	24° \approx 39'07	1°04'00	opposition	4209 Jun 10 06:19	20° \mathfrak{X} 50'19	-1°-15'-12
	4204 Feb 21 14:15	0° \mathfrak{X}		greatest brilliancy	4209 Jun 10 18:16	20° \mathfrak{X} 39'16	-1.7m
	4204 Mar 30 23:56	0° Υ		min. Earth dist.	4209 Jun 17 15:02	18° \mathfrak{X} 06'52	0.56279 AU
morning rise	4204 Apr 20 12:21	16° Υ 10'20		direct	4209 Jul 20 10:14	11° \mathfrak{X} 18'51	
	4204 May 08 02:18	0° δ			4209 Sep 19 01:10	0° \mathfrak{Z}	
	4204 Jun 15 18:34	0° Π			4209 Nov 06 22:27	0° \approx	
	4204 Jul 25 21:52	0° \mathfrak{S}			4209 Dec 18 14:14	0° \mathfrak{X}	
asc. node	4204 Jul 27 04:27	0° \mathfrak{S} 55'40			4210 Jan 26 21:30	0° Υ	
	4204 Sep 06 09:44	0° Ω			4210 Mar 06 18:46	0° δ	
	4204 Oct 22 13:10	0° \cap		asc. node	4210 Mar 19 01:21	9° δ 22'56	
	4204 Dec 15 09:50	0° $\underline{\mathfrak{A}}$			4210 Apr 15 10:36	0° Π	
retrograde	4205 Feb 17 06:03	18° $\underline{\mathfrak{A}}$ 30'18			4210 May 26 15:40	0° \mathfrak{S}	
opposition	4205 Mar 29 11:15	8° $\underline{\mathfrak{A}}$ 48'09	3°49'57	evening set	4210 Jun 27 15:14	22° \mathfrak{S} 22'33	
greatest brilliancy	4205 Mar 29 11:17	8° $\underline{\mathfrak{A}}$ 48'07	-1.2m		4210 Jul 08 18:44	0° Ω	
min. Earth dist.	4205 Mar 29 14:05	8° $\underline{\mathfrak{A}}$ 45'19	0.67883 AU				
	4205 Apr 26 17:18	30° \mathbb{R} \cap		conjunction	4210 Aug 18 20:37	27° Ω 25'30	1°06'55
direct	4205 May 09 07:49	28° \cap 59'05		minimum elong	4210 Aug 18 20:05	27° Ω 24'38	1°06'54
	4205 May 22 14:53	0° $\underline{\mathfrak{A}}$			4210 Aug 22 18:56	0° \cap	
desc. node	4205 Aug 06 13:58	29° $\underline{\mathfrak{A}}$ 21'54		max. Earth dist.	4210 Sep 04 12:55	8° \cap 18'25	2.63353 AU
	4205 Aug 07 18:24	0° \mathbb{M}		morning rise	4210 Oct 05 13:18	28° \cap 14'46	
	4205 Sep 27 18:44	0° \mathfrak{X}			4210 Oct 08 07:21	0° $\underline{\mathfrak{A}}$	
	4205 Nov 11 21:48	0° \mathfrak{Z}			4210 Nov 24 21:41	0° \mathbb{M}	
	4205 Dec 23 13:04	0° \approx			4211 Jan 12 11:30	0° \mathfrak{X}	
	4206 Jan 31 22:15	0° \mathfrak{X}			4211 Mar 03 20:52	0° \mathfrak{Z}	
evening set	4206 Feb 17 03:47	12° \mathfrak{X} 40'56		desc. node	4211 Mar 29 11:01	14° \mathfrak{Z} 20'59	
	4206 Mar 11 02:35	0° Υ			4211 Apr 29 03:50	0° \approx	
	4206 Apr 18 01:36	0° δ		retrograde	4211 Jul 01 19:37	18° \approx 12'19	
				opposition	4211 Aug 03 05:04	12° \approx 14'36	-5°-35'-2
conjunction	4206 Apr 26 11:53	6° δ 36'45	0°-32'-10	greatest brilliancy	4211 Aug 05 06:23	11° \approx 36'02	-2.5m
minimum elong	4206 Apr 26 14:50	6° δ 42'30	0°32'09	min. Earth dist.	4211 Aug 11 03:26	9° \approx 46'56	0.43162 AU
	4206 May 26 17:09	0° Π		direct	4211 Sep 07 05:28	5° \approx 05'02	
asc. node	4206 Jun 14 04:12	13° Π 58'08			4211 Nov 14 18:41	0° \mathfrak{X}	
max. Earth dist.	4206 Jun 17 00:44	16° Π 06'19	2.40263 AU		4211 Dec 30 05:25	0° Υ	
morning rise	4206 Jul 04 15:13	29° Π 07'05		asc. node	4212 Feb 04 01:06	25° Υ 35'19	
	4206 Jul 05 20:11	0° \mathfrak{S}			4212 Feb 10 03:53	0° δ	
	4206 Aug 17 01:19	0° Ω			4212 Mar 22 22:58	0° Π	
	4206 Sep 30 20:21	0° \cap			4212 May 04 20:22	0° \mathfrak{S}	
	4206 Nov 17 23:42	0° $\underline{\mathfrak{A}}$			4212 Jun 18 06:54	0° Ω	
	4207 Jan 11 15:15	0° \mathbb{M}			4212 Aug 03 04:37	0° \cap	
retrograde	4207 Mar 24 15:49	21° \mathbb{M} 42'31		evening set	4212 Aug 09 22:07	4° \cap 20'08	
opposition	4207 May 02 20:18	12° \mathbb{M} 40'04	1°53'25		4212 Sep 19 01:32	0° $\underline{\mathfrak{A}}$	
greatest brilliancy	4207 May 03 05:33	12° \mathbb{M} 31'02	-1.3m				
min. Earth dist.	4207 May 06 18:57	11° \mathbb{M} 07'44	0.65247 AU	conjunction	4212 Sep 25 19:09	4° $\underline{\mathfrak{A}}$ 17'02	1°00'57
direct	4207 Jun 13 08:26	2° \mathbb{M} 37'21		minimum elong	4212 Sep 25 20:02	4° $\underline{\mathfrak{A}}$ 18'26	1°00'57
desc. node	4207 Jun 24 13:25	3° \mathbb{M} 22'45		max. Earth dist.	4212 Sep 27 11:36	5° $\underline{\mathfrak{A}}$ 21'20	2.67603 AU
	4207 Sep 02 00:44	0° \mathfrak{X}			4212 Nov 05 05:33	0° \mathbb{M}	
	4207 Oct 21 00:10	0° \mathfrak{Z}		morning rise	4212 Nov 09 05:54	2° \mathbb{M} 33'31	
	4207 Dec 02 17:58	0° \approx			4212 Dec 22 03:04	0° \mathfrak{X}	
	4208 Jan 11 11:19	0° \mathfrak{X}			4213 Feb 06 12:18	0° \mathfrak{Z}	
	4208 Feb 18 19:14	0° Υ		desc. node	4213 Feb 13 10:00	4° \mathfrak{Z} 29'30	

	4213 Mar 24 11:56	0°♊	opposition	4218 Feb 09 04:10	19°♌40'48	4°36'39
	4213 May 09 13:25	0°♋	direct	4218 Mar 18 19:13	10°♌57'06	
	4213 Jun 26 09:20	0°♌		4218 May 24 13:38	0°♍	
	4213 Aug 28 03:00	0°♍		4218 Jul 21 00:08	0°♎	
retrograde	4213 Sep 19 10:07	3°♍11'34		4218 Sep 09 13:36	0°♏	
	4213 Oct 11 22:53	30°♎♐	desc. node	4218 Oct 06 06:32	16°♏48'38	
min. Earth dist.	4213 Oct 17 00:28	28°♐40'01	0.37457 AU	4218 Oct 26 13:00	0°♑	
opposition	4213 Oct 20 07:09	27°♐46'16	-4°-15'-37	4218 Dec 02 06:36	24°♑52'30	
greatest brilliancy	4213 Oct 19 19:46	27°♐54'03	-2.9m	4218 Dec 09 14:48	0°♒	
direct	4213 Nov 18 18:03	22°♐48'50		4218 Dec 16 14:52	4°♒56'03	2.48527 AU
asc. node	4213 Dec 22 00:30	29°♐23'38		4219 Jan 20 06:00	0°♓	
	4213 Dec 23 16:10	0°♑				
	4214 Feb 20 12:05	0°♒	conjunction	4219 Jan 23 05:03	2°♓11'31	0°-54'-35
	4214 Apr 10 09:30	0°♓	minimum elong	4219 Jan 23 03:22	2°♓08'23	0°54'35
	4214 May 28 02:12	0°♌		4219 Mar 01 00:09	0°♋	
	4214 Jul 14 21:26	0°♍	morning rise	4219 Mar 23 10:44	17°♋22'19	
	4214 Aug 31 17:54	0°♎		4219 Apr 08 14:23	0°♌	
evening set	4214 Sep 16 17:25	10°♎03'55		4219 May 16 20:15	0°♍	
	4214 Oct 18 02:42	0°♏		4219 Jun 24 14:53	0°♎	
max. Earth dist.	4214 Oct 20 06:48	1°♏23'23	2.66392 AU	4219 Aug 03 21:02	0°♏	
			asc. node	4219 Aug 13 21:44	7°♏13'18	
conjunction	4214 Oct 31 20:39	8°♏49'27	0°32'10	4219 Sep 15 17:27	0°♐	
minimum elong	4214 Oct 31 21:33	8°♏50'53	0°32'11	4219 Nov 02 04:28	0°♑	
	4214 Dec 03 09:38	0°♑		4220 Jan 03 18:17	0°♒	
morning rise	4214 Dec 15 06:55	7°♑51'09		4220 Feb 04 23:50	5°♒43'55	
desc. node	4215 Jan 01 08:42	19°♑15'07		4220 Mar 05 15:04	30°♒♐	
	4215 Jan 17 06:11	0°♒	min. Earth dist.	4220 Mar 14 21:24	26°♒25'46	0.67115 AU
	4215 Mar 01 14:44	0°♓	opposition	4220 Mar 16 07:02	25°♒52'06	4°17'58
	4215 Apr 12 14:34	0°♋	greatest brilliancy	4220 Mar 15 23:43	25°♒59'25	-1.2m
	4215 May 23 14:55	0°♌	direct	4220 Apr 25 12:07	16°♒15'49	
	4215 Jul 03 11:02	0°♍		4220 Jun 19 15:42	0°♎	
	4215 Aug 14 22:06	0°♎		4220 Aug 17 16:26	0°♏	
	4215 Oct 04 02:21	0°♏	desc. node	4220 Aug 23 05:26	3°♏12'09	
asc. node	4215 Nov 08 23:08	12°♏13'17		4220 Oct 05 20:07	0°♑	
retrograde	4215 Nov 19 22:24	13°♏04'24		4220 Nov 19 11:03	0°♒	
min. Earth dist.	4215 Dec 18 16:59	7°♏19'48	0.48427 AU	4220 Dec 30 23:55	0°♓	
opposition	4215 Dec 26 23:08	4°♏20'34	2°34'54	4221 Jan 22 13:39	17°♓01'42	
greatest brilliancy	4215 Dec 25 18:27	4°♏46'40	-2.2m	4221 Feb 08 09:53	0°♋	
	4216 Jan 09 07:00	30°♒♐		4221 Mar 18 15:24	0°♌	
direct	4216 Jan 29 14:59	27°♒13'51		4221 Mar 23 12:44	3°♌51'58	2.36876 AU
	4216 Feb 20 04:23	0°♓				
	4216 Apr 30 06:50	0°♌	conjunction	4221 Mar 27 19:17	7°♌14'45	0°-55'-28
	4216 Jun 22 10:49	0°♍	minimum elong	4221 Mar 27 22:14	7°♌20'35	0°55'27
	4216 Aug 11 13:50	0°♎		4221 Apr 25 14:49	0°♍	
	4216 Sep 28 19:41	0°♏		4221 Jun 03 05:34	0°♎	
evening set	4216 Oct 22 11:50	15°♏10'30		4221 Jun 07 13:05	3°♏17'37	
max. Earth dist.	4216 Nov 13 11:36	29°♏35'02	2.59828 AU	4221 Jun 30 19:31	20°♏47'58	
	4216 Nov 14 02:40	0°♑	asc. node	4221 Jul 13 07:10	0°♓	
desc. node	4216 Nov 18 07:23	2°♑47'17		4221 Aug 24 12:26	0°♌	
				4221 Oct 08 14:06	0°♍	
conjunction	4216 Dec 07 20:58	15°♑57'07	0°-10'-58	4221 Nov 26 22:40	0°♎	
minimum elong	4216 Dec 07 20:34	15°♑56'26	0°10'58	4222 Jan 27 09:26	0°♏	
behind sun begin	4216 Dec 07 05:46	15°♑31'19		4222 Mar 10 11:42	8°♏49'55	
behind sun end	4216 Dec 08 11:21	16°♑21'34		4222 Apr 17 21:54	30°♒♐	
	4216 Dec 28 07:25	0°♒	opposition	4222 Apr 19 05:13	29°♐29'11	2°46'00
morning rise	4217 Jan 25 01:55	19°♒35'43	greatest brilliancy	4222 Apr 19 13:02	29°♐21'28	-1.3m
	4217 Feb 08 12:06	0°♓	min. Earth dist.	4222 Apr 21 16:03	28°♐31'10	0.67081 AU
	4217 Mar 21 00:16	0°♋	direct	4222 May 30 15:37	19°♐28'11	
	4217 Apr 29 08:34	0°♌	desc. node	4222 Jul 11 04:00	28°♐06'50	
	4217 Jun 07 06:31	0°♍		4222 Jul 16 02:15	0°♎	
	4217 Jul 16 17:30	0°♎		4222 Sep 12 22:19	0°♑	
	4217 Aug 27 03:32	0°♏		4222 Oct 29 18:03	0°♒	
asc. node	4217 Sep 25 22:35	19°♏54'45		4222 Dec 10 21:29	0°♓	
	4217 Oct 12 08:23	0°♌		4223 Jan 19 09:50	0°♋	
retrograde	4217 Dec 31 12:17	29°♌35'10		4223 Feb 26 08:45	29°♋47'50	1.2m
min. Earth dist.	4218 Feb 03 22:16	21°♌45'42	0.60584 AU	4223 Feb 26 14:54	0°♌	
greatest brilliancy	4218 Feb 08 00:00	20°♌08'48	-1.5m	4223 Apr 02 17:23	27°♌42'58	

	4223 Apr 05 15:12	0°♄		4227 Dec 30 10:49	0°♄	
	4223 May 14 09:24	0°♄		4228 Feb 15 21:54	0°♄	
asc. node	4223 May 18 19:16	3°♄21'05	desc. node	4228 Mar 02 00:16	9°♄29'24	
				4228 Apr 04 00:13	0°♄	
conjunction	4223 Jun 08 23:36	19°♄13'22	0°14'06	4228 May 24 15:31	0°♄	
minimum elong	4223 Jun 08 22:28	19°♄11'16	0°14'05	4228 Aug 03 15:58	0°♄	
behind sun begin	4223 Jun 08 09:41	18°♄47'34		4228 Aug 18 10:11	1°♄21'48	
behind sun end	4223 Jun 09 11:16	19°♄34'57		4228 Sep 02 06:46	30°♄	
	4223 Jun 23 15:53	0°♄		4228 Sep 17 11:31	26°♄25'17	-6°-25'-35
max. Earth dist.	4223 Jul 23 20:15	21°♄33'55	2.48699 AU	4228 Sep 18 07:09	26°♄12'10	-2.9m
	4223 Aug 04 23:04	0°♄		4228 Sep 19 18:43	25°♄48'28	0.37466 AU
morning rise	4223 Aug 08 14:12	2°♄30'14		4228 Oct 17 19:26	21°♄16'02	
	4223 Sep 18 13:04	0°♄		4228 Nov 24 20:06	0°♄	
	4223 Nov 04 14:47	0°♄		4229 Jan 07 16:04	23°♄08'38	
	4223 Dec 25 01:13	0°♄		4229 Jan 18 19:10	0°♄	
	4224 Feb 22 04:16	0°♄		4229 Mar 06 01:07	0°♄	
retrograde	4224 Apr 17 01:03	13°♄42'05		4229 Apr 20 09:33	0°♄	
opposition	4224 May 24 22:08	5°♄16'34	0°07'37	4229 Jun 05 09:13	0°♄	
greatest brilliancy	4224 Apr 28 01:13	12°♄56'34	-1.7m	4229 Jul 22 05:57	0°♄	
desc. node	4224 May 28 02:53	4°♄03'25		4229 Sep 02 09:38	26°♄41'51	
min. Earth dist.	4224 May 31 01:01	2°♄56'55	0.60496 AU	4229 Sep 07 14:54	0°♄	
	4224 Jun 08 08:20	30°♄		4229 Oct 11 07:00	21°♄21'20	2.67509 AU
direct	4224 Jul 04 21:58	25°♄24'52				
	4224 Aug 02 03:00	0°♄		conjunction	4229 Oct 17 20:51	25°♄32'43 0°45'28
	4224 Oct 03 04:30	0°♄		minimum elong	4229 Oct 17 21:54	25°♄34'25 0°45'27
	4224 Nov 17 05:48	0°♄			4229 Oct 24 20:16	0°♄
	4224 Dec 27 19:12	0°♄		morning rise	4229 Nov 30 22:33	23°♄54'14
	4225 Feb 04 13:28	0°♄			4229 Dec 10 07:03	0°♄
	4225 Mar 15 01:01	0°♄		desc. node	4230 Jan 17 23:37	25°♄33'29
asc. node	4225 Apr 04 19:14	15°♄58'33			4230 Jan 24 14:49	0°♄
	4225 Apr 23 07:38	0°♄			4230 Mar 09 17:44	0°♄
	4225 Jun 03 03:31	0°♄			4230 Apr 21 18:57	0°♄
evening set	4225 Jun 06 21:23	2°♄40'59			4230 Jun 03 04:22	0°♄
	4225 Jul 15 22:27	0°♄			4230 Jul 16 02:15	0°♄
					4230 Sep 01 14:21	0°♄
conjunction	4225 Aug 01 15:17	11°♄20'26	1°00'39	retrograde	4230 Oct 30 03:24	19°♄25'49
minimum elong	4225 Aug 01 13:56	11°♄18'11	1°00'39	asc. node	4230 Nov 25 16:15	14°♄38'24
max. Earth dist.	4225 Aug 25 06:20	27°♄04'32	2.60178 AU	min. Earth dist.	4230 Nov 26 00:59	14°♄31'25 0.43117 AU
	4225 Aug 29 17:03	0°♄		opposition	4230 Dec 04 03:25	11°♄50'34 0°31'47
morning rise	4225 Sep 20 18:02	14°♄20'36		greatest brilliancy	4230 Dec 03 20:42	11°♄56'08 -2.5m
	4225 Oct 15 05:18	0°♄		direct	4231 Jan 04 19:05	5°♄38'50
	4225 Dec 02 05:18	0°♄			4231 Mar 19 21:36	0°♄
	4226 Jan 21 01:15	0°♄			4231 May 12 15:45	0°♄
	4226 Mar 16 04:15	0°♄			4231 Jul 01 21:33	0°♄
desc. node	4226 Apr 15 01:44	14°♄00'21			4231 Aug 19 21:35	0°♄
retrograde	4226 Jun 06 05:24	26°♄46'45			4231 Oct 06 17:04	0°♄
opposition	4226 Jul 10 12:50	19°♄56'54	-3°-52'-4	evening set	4231 Oct 09 00:03	1°♄27'39
greatest brilliancy	4226 Jul 12 03:56	19°♄23'21	-2.1m	max. Earth dist.	4231 Nov 04 05:40	18°♄22'17 2.63016 AU
min. Earth dist.	4226 Jul 19 00:21	17°♄03'30	0.48396 AU		4231 Nov 21 22:46	0°♄
direct	4226 Aug 17 03:44	11°♄33'28				
	4226 Oct 14 05:36	0°♄		conjunction	4231 Nov 23 12:02	1°♄01'39 0°06'55
	4226 Nov 30 17:03	0°♄		minimum elong	4231 Nov 23 12:15	1°♄02'01 0°06'56
	4227 Jan 11 02:45	0°♄		behind sun begin	4231 Nov 22 18:42	0°♄32'59
asc. node	4227 Feb 20 17:32	0°♄21'02		behind sun end	4231 Nov 24 05:49	1°♄31'05
	4227 Feb 20 06:16	0°♄		desc. node	4231 Dec 05 22:56	9°♄19'36
	4227 Apr 01 21:37	0°♄			4232 Jan 05 08:24	0°♄
	4227 May 13 22:19	0°♄		morning rise	4232 Jan 08 15:15	2°♄16'20
	4227 Jun 26 17:22	0°♄			4232 Feb 16 21:57	0°♄
evening set	4227 Jul 25 19:30	19°♄18'29			4232 Mar 28 21:16	0°♄
	4227 Aug 11 04:21	0°♄			4232 May 07 17:08	0°♄
					4232 Jun 16 02:51	0°♄
conjunction	4227 Sep 12 06:49	20°♄41'56	1°06'29		4232 Jul 26 04:48	0°♄
minimum elong	4227 Sep 12 07:19	20°♄42'44	1°06'29		4232 Sep 06 21:35	0°♄
max. Earth dist.	4227 Sep 19 13:28	25°♄21'13	2.66581 AU	asc. node	4232 Oct 12 14:38	21°♄56'22
	4227 Sep 26 20:09	0°♄			4232 Oct 28 04:37	0°♄
morning rise	4227 Oct 27 14:16	19°♄33'03		retrograde	4232 Dec 16 06:12	13°♄29'43
	4227 Nov 13 01:57	0°♄		min. Earth dist.	4233 Jan 17 13:40	6°♄24'41 0.56363 AU

greatest brilliancy	4233 Jan 22 19:20	4°02'23"0	-1.8m	conjunction	4238 May 12 22:15	23°07'19"	0°-15'-19"
opposition	4233 Jan 24 05:05	3°04'33"	4°13'32"	minimum elong	4238 May 12 23:44	23°08'10"	0°15'19"
	4233 Feb 03 16:44	30°08'00"		behind sun begin	4238 May 12 15:01	22°08'53"	23°
direct	4233 Mar 01 10:49	25°03'37"02		behind sun end	4238 May 13 08:27	23°08'26"	56°
	4233 Mar 29 17:15	0°02'			4238 May 21 21:33	0°02'	
	4233 Jun 06 05:17	0°07'		asc. node	4238 Jun 04 12:22	10°02'19"	44°
	4233 Jul 29 13:01	0°01'			4238 Jul 01 00:52	0°01'	
	4233 Sep 16 22:48	0°00'		max. Earth dist.	4238 Jul 03 09:24	1°03'43"	2.43248 AU
desc. node	4233 Oct 22 21:35	22°00'58"40		morning rise	4238 Jul 18 05:01	12°03'24"	14°
	4233 Nov 02 13:57	0°00'			4238 Aug 12 05:32	0°00'	
evening set	4233 Nov 15 11:56	8°00'37"00			4238 Sep 25 20:51	0°00'	
max. Earth dist.	4233 Dec 01 21:39	19°00'45"52	2.53452 AU		4238 Nov 12 11:23	0°00'	
	4233 Dec 16 16:09	0°00'			4239 Jan 04 00:16	0°00'	
				retrograde	4239 Apr 02 04:26	29°00'47"	07°
conjunction	4234 Jan 03 13:12	12°00'38"29	0°-39'-14"	opposition	4239 May 10 22:59	20°00'56"	24°
minimum elong	4234 Jan 03 11:45	12°00'35"52	0°39'14"	greatest brilliancy	4239 May 11 06:58	20°00'48"	39°
	4234 Jan 27 11:48	0°00'		min. Earth dist.	4239 May 15 16:28	19°00'06"	28°
morning rise	4234 Feb 26 06:24	22°00'13"14		desc. node	4239 Jun 14 17:45	11°00'12"	28°
	4234 Mar 08 12:01	0°00'		direct	4239 Jun 21 08:38	10°00'55"	20°
	4234 Apr 16 07:54	0°00'			4239 Aug 24 12:23	0°00'	
	4234 May 24 18:14	0°00'			4239 Oct 14 23:03	0°00'	
	4234 Jul 02 16:36	0°00'			4239 Nov 27 08:13	0°00'	
	4234 Aug 12 04:18	0°00'			4240 Jan 06 07:33	0°00'	
asc. node	4234 Aug 30 13:28	13°00'00"37			4240 Feb 13 18:15	0°00'	
	4234 Sep 24 16:35	0°00'			4240 Mar 22 23:33	0°00'	
	4234 Nov 13 18:15	0°00'		asc. node	4240 Apr 21 10:57	22°00'45"	35°
retrograde	4235 Jan 22 14:34	22°00'32"30			4240 Apr 30 23:44	0°00'	
min. Earth dist.	4235 Feb 28 21:33	13°00'45"16	0.65334 AU	evening set	4240 May 14 09:00	10°00'03"	14°
opposition	4235 Mar 03 19:39	12°00'35"01	4°35'40"		4240 Jun 10 12:51	0°00'	
greatest brilliancy	4235 Mar 03 04:04	12°00'50"39	-1.3m				
direct	4235 Apr 12 04:28	3°00'15"32		conjunction	4240 Jul 13 11:35	23°00'21"	56°
	4235 Jul 04 06:54	0°00'		minimum elong	4240 Jul 13 09:36	23°00'18"	28°
	4235 Aug 27 09:35	0°00'			4240 Jul 23 01:45	0°00'	
desc. node	4235 Sep 09 20:05	8°00'06"58		max. Earth dist.	4240 Aug 13 22:05	14°00'51"	36°
	4235 Oct 14 10:37	0°00'		morning rise	4240 Sep 04 20:29	29°00'26"	37°
	4235 Nov 27 18:42	0°00'			4240 Sep 05 16:47	0°00'	
evening set	4236 Jan 01 03:10	24°00'41"08			4240 Oct 22 07:18	0°00'	
	4236 Jan 08 07:44	0°00'			4240 Dec 09 22:08	0°00'	
max. Earth dist.	4236 Jan 20 16:25	9°00'14"48	2.40532 AU		4241 Jan 30 17:35	0°00'	
	4236 Feb 16 20:26	0°00'			4241 Apr 03 20:07	0°00'	
				desc. node	4241 May 01 16:27	7°00'27"	58°
conjunction	4236 Feb 28 20:09	9°00'18"47	-1°-4'-54"	retrograde	4241 May 15 13:25	8°00'34"	06°
minimum elong	4236 Feb 28 20:30	9°00'19"30	1°04'55"	opposition	4241 Jun 20 11:36	1°00'00"	06°
	4236 Mar 26 04:41	0°00'		greatest brilliancy	4241 Jun 21 09:08	0°00'40"	34°
	4236 May 03 05:45	0°00'			4241 Jun 23 05:41	30°00'00"	00°
morning rise	4236 May 07 22:24	3°00'40"59		min. Earth dist.	4241 Jun 28 09:05	28°00'08"	40°
	4236 Jun 10 20:48	0°00'		direct	4241 Jul 29 21:59	21°00'00"	47°
asc. node	4236 Jul 17 13:33	27°00'32"25			4241 Sep 05 10:54	0°00'	
	4236 Jul 20 22:08	0°00'			4241 Oct 30 10:25	0°00'	
	4236 Sep 01 05:32	0°00'			4241 Dec 12 07:51	0°00'	
	4236 Oct 16 19:19	0°00'			4242 Jan 21 03:49	0°00'	
	4236 Dec 07 07:36	0°00'			4242 Mar 01 08:56	0°00'	
retrograde	4237 Feb 24 22:00	26°00'13"00		asc. node	4242 Mar 09 10:40	6°00'07"	57°
opposition	4237 Apr 06 00:05	16°00'37"26	3°29'02"		4242 Apr 10 06:58	0°00'	
greatest brilliancy	4237 Apr 06 03:29	16°00'34"03	-1.2m		4242 May 21 17:00	0°00'	
min. Earth dist.	4237 Apr 06 22:46	16°00'14"52	0.67879 AU		4242 Jul 04 00:09	0°00'	
direct	4237 May 17 02:58	6°00'42"59		evening set	4242 Jul 08 08:02	2°00'55"	43°
desc. node	4237 Jul 27 18:54	28°00'15"58			4242 Aug 18 02:52	0°00'	
	4237 Jul 31 06:45	0°00'					
	4237 Sep 22 04:38	0°00'		conjunction	4242 Aug 28 00:19	6°00'26"	35°
	4237 Nov 06 20:18	0°00'		minimum elong	4242 Aug 28 00:14	6°00'26"	26°
	4237 Dec 18 15:41	0°00'		max. Earth dist.	4242 Sep 10 04:15	14°00'57"	31°
	4238 Jan 27 02:02	0°00'			4242 Oct 03 15:35	0°00'	
evening set	4238 Mar 04 19:38	28°00'51"07		morning rise	4242 Oct 13 16:36	6°00'23"	30°
	4238 Mar 06 06:27	0°00'			4242 Nov 20 01:44	0°00'	
	4238 Apr 13 05:35	0°00'			4243 Jan 07 02:54	0°00'	
					4243 Feb 25 04:17	0°00'	

desc. node	4243 Mar 19 15:54	13°☾19'20			4248 Aug 06 10:38	0°♊		
	4243 Apr 18 03:02	0°♊			4248 Sep 24 01:34	0°♌		
	4243 Jun 26 13:41	0°♋		evening set	4248 Oct 30 23:55	23°♌45'03		
retrograde	4243 Jul 18 11:24	2°♋44'44		desc. node	4248 Nov 08 12:16	29°♌21'33		
	4243 Aug 08 16:03	30°♌			4248 Nov 09 11:29	0°♍		
opposition	4243 Aug 18 15:54	27°♌16'18	-6°-19'-49	max. Earth dist.	4248 Nov 19 20:00	6°♍53'50	2.57747 AU	
greatest brilliancy	4243 Aug 20 14:31	26°♌42'05	-2.6m					
min. Earth dist.	4243 Aug 25 08:02	25°♌19'19	0.40564 AU	conjunction	4248 Dec 17 02:50	25°♍28'00	0°-21'-31	
direct	4243 Sep 20 23:26	20°♌54'55		minimum elong	4248 Dec 17 02:02	25°♍26'36	0°21'30	
	4243 Oct 29 05:08	0°♋			4248 Dec 23 15:40	0°☾		
	4243 Dec 21 02:41	0°♑			4249 Feb 03 17:15	0°♊		
asc. node	4244 Jan 25 08:53	23°♑57'33		morning rise	4249 Feb 04 21:46	0°♊52'02		
	4244 Feb 03 00:36	0°♉			4249 Mar 16 01:14	0°♋		
	4244 Mar 16 20:18	0°♈			4249 Apr 24 04:56	0°♑		
	4244 Apr 29 09:08	0°☾			4249 Jun 01 22:07	0°♉		
	4244 Jun 13 06:02	0°♌			4249 Jul 11 03:22	0°♈		
	4244 Jul 29 10:12	0°♎			4249 Aug 21 02:06	0°☾		
evening set	4244 Aug 18 15:22	12°♎56'24		asc. node	4249 Sep 16 07:26	18°☾01'23		
	4244 Sep 14 10:32	0°♊			4249 Oct 04 21:06	0°♌		
					4249 Nov 30 19:07	0°♎		
conjunction	4244 Oct 03 20:57	12°♊20'51	0°56'07	retrograde	4250 Jan 08 18:10	8°♎32'22		
minimum elong	4244 Oct 03 21:58	12°♊22'28	0°56'06	min. Earth dist.	4250 Feb 13 05:37	0°♎21'09	0.62525 AU	
max. Earth dist.	4244 Oct 02 15:06	11°♊33'27	2.67809 AU		4250 Feb 14 02:55	30°♌		
	4244 Oct 31 14:31	0°♌		opposition	4250 Feb 17 16:10	28°♌34'50	4°40'59	
morning rise	4244 Nov 17 01:12	10°♌30'49		greatest brilliancy	4250 Feb 16 16:08	28°♌58'51	-1.5m	
	4244 Dec 17 07:43	0°♍		direct	4250 Mar 27 23:14	19°♌37'04		
	4245 Feb 01 06:52	0°☾			4250 May 13 13:52	0°♎		
desc. node	4245 Feb 03 14:58	1°☾32'25			4250 Jul 14 19:45	0°♊		
	4245 Mar 18 11:33	0°♊			4250 Sep 04 10:02	0°♌		
	4245 May 02 03:58	0°♋		desc. node	4250 Sep 26 10:53	13°♌41'28		
	4245 Jun 16 03:16	0°♑			4250 Oct 21 18:04	0°♍		
	4245 Aug 03 16:38	0°♉			4250 Dec 04 22:36	0°☾		
retrograde	4245 Oct 05 10:27	21°♉16'21		evening set	4250 Dec 12 11:29	5°☾18'41		
min. Earth dist.	4245 Nov 01 00:27	16°♉49'55	0.38816 AU	max. Earth dist.	4250 Dec 26 20:38	15°☾35'45	2.45668 AU	
opposition	4245 Nov 06 18:45	15°♉08'34	-2°-26'-11		4251 Jan 15 13:21	0°♊		
greatest brilliancy	4245 Nov 06 03:39	15°♉19'41	-2.8m					
direct	4245 Dec 06 17:15	9°♉51'32		conjunction	4251 Feb 04 11:32	14°♊54'47	-1°00'-58	
asc. node	4245 Dec 12 07:28	10°♉04'05		minimum elong	4251 Feb 04 10:10	14°♊52'12	1°00'58	
	4246 Feb 08 23:43	0°♈			4251 Feb 24 05:45	0°♋		
	4246 Apr 03 02:49	0°☾			4251 Apr 03 17:41	0°♑		
	4246 May 22 06:43	0°♌		morning rise	4251 Apr 08 08:04	3°♑36'59		
	4246 Jul 09 18:41	0°♎		greatest brilliancy	4251 Apr 26 04:49	17°♑40'28	1.2m	
	4246 Aug 26 23:43	0°♊			4251 May 11 21:19	0°♉		
evening set	4246 Sep 24 19:56	18°♊08'13			4251 Jun 19 13:55	0°♈		
	4246 Oct 13 11:56	0°♌			4251 Jul 29 17:02	0°☾		
max. Earth dist.	4246 Oct 25 15:21	7°♌47'02	2.65425 AU	asc. node	4251 Aug 04 05:15	4°☾00'00		
					4251 Sep 10 06:17	0°♌		
conjunction	4246 Nov 08 23:00	17°♌02'24	0°23'24		4251 Oct 26 18:16	0°♎		
minimum elong	4246 Nov 08 23:43	17°♌03'32	0°23'24		4251 Dec 21 19:05	0°♊		
	4246 Nov 28 18:24	0°♍		retrograde	4252 Feb 12 14:52	13°♊34'05		
desc. node	4246 Dec 22 13:40	15°♍50'17		opposition	4252 Mar 23 21:12	3°♊47'05	4°02'46	
morning rise	4246 Dec 23 19:16	16°♍40'02		min. Earth dist.	4252 Mar 23 07:25	4°♊00'51	0.67662 AU	
	4247 Jan 12 11:09	0°☾		greatest brilliancy	4252 Mar 23 18:05	3°♊50'11	-1.2m	
	4247 Feb 24 12:39	0°♊			4252 Apr 02 16:09	30°♌		
	4247 Apr 07 03:07	0°♋		direct	4252 May 03 11:20	24°♎03'23		
	4247 May 17 15:39	0°♑			4252 Jun 06 14:27	0°♊		
	4247 Jun 26 20:02	0°♉			4252 Aug 11 08:25	0°♌		
	4247 Aug 07 01:49	0°♈		desc. node	4252 Aug 13 09:26	1°♌07'58		
	4247 Sep 21 18:24	0°☾			4252 Sep 30 13:51	0°♍		
asc. node	4247 Oct 30 08:04	19°☾01'29			4252 Nov 14 13:15	0°☾		
retrograde	4247 Nov 30 10:56	25°☾12'29			4252 Dec 26 04:44	0°♊		
min. Earth dist.	4247 Dec 30 11:30	18°☾58'06	0.51354 AU		4253 Feb 03 15:15	0°♋		
greatest brilliancy	4248 Jan 05 21:20	16°☾34'11	-2.0m	evening set	4253 Feb 05 14:05	1°♋30'54		
opposition	4248 Jan 07 07:02	16°☾02'28	3°22'20		4253 Mar 13 20:25	0°♑		
direct	4248 Feb 10 22:03	8°☾29'42						
	4248 Apr 21 07:13	0°♌		conjunction	4253 Apr 13 10:25	24°♑11'30	0°-43'-40	
	4248 Jun 16 09:19	0°♎		minimum elong	4253 Apr 13 13:50	24°♑18'14	0°43'38	

	4253 Apr 20 19:19	0°♄		opposition	4258 Jul 23 08:15	2°≈28'48	-4°-51'-56
max. Earth dist.	4253 May 27 02:24	28°♄14'01	2.38112 AU	greatest brilliancy	4258 Jul 25 07:02	1°≈50'32	-2.3m
	4253 May 29 09:45	0°♂			4258 Jul 30 23:06	30°♄	
asc. node	4253 Jun 21 04:49	17°♂14'39		min. Earth dist.	4258 Jul 31 18:16	29°♄44'51	0.45466 AU
morning rise	4253 Jun 23 06:58	18°♂48'11		direct	4258 Aug 28 15:41	24°♄43'18	
	4253 Jul 08 10:49	0°♄			4258 Sep 26 07:44	0°≈	
	4253 Aug 19 14:15	0°♂			4258 Nov 21 23:29	0°♄	
	4253 Oct 03 09:54	0°♄			4259 Jan 04 03:43	0°♄	
	4253 Nov 20 21:43	0°♂		asc. node	4259 Feb 11 01:31	27°♄44'55	
	4254 Jan 16 10:26	0°♄			4259 Feb 14 03:01	0°♄	
retrograde	4254 Mar 18 12:48	16°♄38'02			4259 Mar 27 07:11	0°♂	
opposition	4254 Apr 26 23:15	7°♄26'54	2°16'23		4259 May 08 17:19	0°♄	
greatest brilliancy	4254 Apr 27 08:12	7°♄18'06	-1.3m		4259 Jun 21 19:19	0°♂	
min. Earth dist.	4254 Apr 30 05:35	6°♄10'01	0.66186 AU	evening set	4259 Aug 04 04:08	28°♂30'54	
	4254 May 18 10:13	30°♄			4259 Aug 06 11:06	0°♄	
direct	4254 Jun 07 10:57	27°♄24'20					
	4254 Jun 28 21:57	0°♄		conjunction	4259 Sep 20 16:23	29°♄01'23	1°03'41
desc. node	4254 Jul 01 08:43	0°♄35'10		minimum elong	4259 Sep 20 17:09	29°♄02'36	1°03'40
	4254 Sep 06 04:17	0°♄			4259 Sep 22 05:10	0°♄	
	4254 Oct 24 04:59	0°♄		max. Earth dist.	4259 Sep 24 20:14	1°♄40'26	2.67262 AU
	4254 Dec 05 17:23	0°≈		morning rise	4259 Nov 04 10:32	27°♄28'57	
	4255 Jan 14 09:22	0°♄			4259 Nov 08 09:37	0°♄	
	4255 Feb 21 16:14	0°♄			4259 Dec 25 11:56	0°♄	
	4255 Mar 31 17:51	0°♄			4260 Feb 10 07:46	0°♄	
evening set	4255 Apr 18 18:38	14°♄02'46		desc. node	4260 Feb 21 05:17	6°♄59'46	
asc. node	4255 May 09 04:03	29°♄41'54			4260 Mar 28 02:43	0°≈	
	4255 May 09 13:35	0°♂			4260 May 14 17:17	0°♄	
	4255 Jun 18 21:31	0°♄			4260 Jul 05 14:14	0°♄	
				retrograde	4260 Sep 05 19:49	19°♄32'56	
conjunction	4255 Jun 22 16:25	2°♄44'50	0°28'31	opposition	4260 Oct 05 23:03	14°♄29'37	-5°-27'-3
minimum elong	4255 Jun 22 14:32	2°♄41'26	0°28'29	min. Earth dist.	4260 Oct 05 03:40	14°♄42'26	0.37039 AU
	4255 Jul 31 05:30	0°♂		greatest brilliancy	4260 Oct 05 23:15	14°♄29'29	-2.9m
max. Earth dist.	4255 Aug 01 17:47	1°♂02'37	2.51556 AU	direct	4260 Nov 04 10:21	9°♄35'50	
morning rise	4255 Aug 19 09:28	13°♂05'41		asc. node	4260 Dec 29 01:17	25°♄38'43	
	4255 Sep 13 18:28	0°♄			4261 Jan 06 11:55	0°♄	
	4255 Oct 30 14:06	0°♄			4261 Feb 26 04:20	0°♂	
	4255 Dec 19 03:57	0°♄			4261 Apr 14 04:07	0°♄	
	4256 Feb 12 11:36	0°♄			4261 May 30 23:34	0°♂	
retrograde	4256 Apr 26 18:19	22°♄33'33			4261 Jul 17 07:25	0°♄	
desc. node	4256 May 18 07:58	19°♄37'22			4261 Sep 02 22:23	0°♄	
opposition	4256 Jun 03 00:25	14°♄24'14	0°-38'-39	evening set	4261 Sep 10 15:30	4°♄52'02	
greatest brilliancy	4256 Jun 03 06:09	14°♄18'52	-1.7m	max. Earth dist.	4261 Oct 16 12:04	27°♄36'49	2.67001 AU
min. Earth dist.	4256 Jun 09 19:57	11°♄50'48	0.58268 AU		4261 Oct 20 05:45	0°♄	
direct	4256 Jul 13 14:03	4°♄42'04					
	4256 Sep 25 01:16	0°♄		conjunction	4261 Oct 25 20:54	3°♄36'12	0°37'59
	4256 Nov 10 23:34	0°≈		minimum elong	4261 Oct 25 21:53	3°♄37'47	0°37'59
	4256 Dec 22 03:06	0°♄			4261 Dec 05 14:56	0°♄	
	4257 Jan 30 04:09	0°♄		morning rise	4261 Dec 09 01:32	2°♄15'31	
	4257 Mar 09 20:12	0°♄		desc. node	4262 Jan 08 04:23	22°♄14'34	
asc. node	4257 Mar 26 02:04	12°♄27'53			4262 Jan 19 17:01	0°♄	
	4257 Apr 18 06:52	0°♂			4262 Mar 04 09:51	0°≈	
	4257 May 29 06:29	0°♄			4262 Apr 15 20:34	0°♄	
evening set	4257 Jun 18 23:47	14°♄39'28			4262 May 27 09:49	0°♄	
	4257 Jul 11 04:34	0°♂			4262 Jul 07 23:02	0°♄	
					4262 Aug 20 19:40	0°♂	
conjunction	4257 Aug 11 15:47	21°♂10'14	1°04'58		4262 Oct 18 17:42	0°♄	
minimum elong	4257 Aug 11 14:55	21°♂08'49	1°04'58	retrograde	4262 Nov 11 08:57	3°♄47'07	
	4257 Aug 25 01:03	0°♄		asc. node	4262 Nov 16 00:11	3°♄37'31	
max. Earth dist.	4257 Aug 31 07:10	4°♄05'39	2.62042 AU		4262 Dec 04 08:02	30°♄	
morning rise	4257 Sep 29 07:39	22°♄51'12		min. Earth dist.	4262 Dec 09 04:26	28°♂25'52	0.46010 AU
	4257 Oct 10 12:23	0°♄		opposition	4262 Dec 17 13:14	25°♂30'27	1°49'24
	4257 Nov 27 05:47	0°♄		greatest brilliancy	4262 Dec 16 15:34	25°♂49'30	-2.3m
	4258 Jan 15 06:42	0°♄		direct	4263 Jan 19 08:30	18°♂47'13	
	4258 Mar 07 22:49	0°♄			4263 Mar 06 23:14	0°♄	
desc. node	4258 Apr 05 06:22	14°♄58'41			4263 May 05 14:39	0°♂	
	4258 May 09 03:31	0°≈			4263 Jun 26 08:05	0°♄	
retrograde	4258 Jun 20 00:53	8°≈50'37			4263 Aug 14 22:46	0°♄	

	4263 Oct 02 00:27	0°♌		morning rise	4268 May 25 11:14	21°♏10'00	
evening set	4263 Oct 17 05:48	9°♌43'41			4268 Jun 05 22:37	0°♐	
max. Earth dist.	4263 Nov 10 02:20	25°♌14'01	2.61359 AU	asc. node	4268 Jul 07 20:36	24°♐02'25	
	4263 Nov 17 07:47	0°♑			4268 Jul 15 22:59	0°♑	
desc. node	4263 Nov 26 02:56	5°♑50'51			4268 Aug 27 03:22	0°♒	
					4268 Oct 11 07:39	0°♓	
conjunction	4263 Dec 02 03:49	9°♑53'17	0°-3'-24		4268 Nov 30 07:26	0°♑	
minimum elong	4263 Dec 02 03:39	9°♑53'02	0°03'24		4269 Feb 05 21:37	0°♌	
behind sun begin	4263 Dec 01 08:29	9°♑20'52		retrograde	4269 Mar 04 15:44	3°♌54'16	
behind sun end	4263 Dec 02 22:50	10°♑25'13			4269 Mar 29 06:51	30°♒♑	
	4263 Dec 31 15:48	0°♒		opposition	4269 Apr 13 13:17	24°♑26'22	3°04'55
morning rise	4264 Jan 18 07:29	12°♒20'05		greatest brilliancy	4269 Apr 13 19:21	24°♑20'21	-1.2m
	4264 Feb 12 01:19	0°♓		min. Earth dist.	4269 Apr 15 07:28	23°♑44'34	0.67569 AU
	4264 Mar 23 19:05	0°♈		direct	4269 May 24 20:49	14°♑27'51	
	4264 May 02 08:43	0°♑		desc. node	4269 Jul 17 23:55	28°♑03'54	
	4264 Jun 10 11:13	0°♉			4269 Jul 22 09:34	0°♌	
	4264 Jul 20 03:10	0°♐			4269 Sep 16 07:10	0°♑	
	4264 Aug 30 22:08	0°♑			4269 Nov 01 15:47	0°♒	
asc. node	4264 Oct 02 23:18	21°♑30'56			4269 Dec 13 16:48	0°♓	
	4264 Oct 17 11:26	0°♒			4270 Jan 22 05:01	0°♈	
retrograde	4264 Dec 25 02:49	23°♒21'50			4270 Mar 01 10:00	0°♑	
min. Earth dist.	4265 Jan 27 14:44	15°♒51'41	0.58796 AU	evening set	4270 Mar 21 00:28	15°♑30'55	
greatest brilliancy	4265 Feb 01 05:04	14°♒03'00	-1.6m		4270 Apr 08 09:16	0°♉	
opposition	4265 Feb 02 12:21	13°♒32'07	4°30'05	greatest brilliancy	4270 Apr 09 10:18	0°♉49'09	1.2m
direct	4265 Mar 11 12:50	5°♒01'35			4270 May 17 01:33	0°♐	
	4265 May 29 10:54	0°♓		asc. node	4270 May 25 20:04	6°♐39'53	
	4265 Jul 23 21:48	0°♑					
	4265 Sep 11 23:34	0°♌		conjunction	4270 May 28 14:40	8°♐45'38	0°01'55
desc. node	4265 Oct 13 01:45	19°♌41'28		minimum elong	4270 May 28 14:30	8°♐45'19	0°01'55
	4265 Oct 28 20:29	0°♑		behind sun begin	4270 May 27 10:38	7°♐52'46	
evening set	4265 Nov 24 21:07	18°♑09'40		behind sun end	4270 May 29 18:21	9°♐37'48	
max. Earth dist.	4265 Dec 10 00:27	28°♑37'16	2.50789 AU		4270 Jun 26 05:24	0°♑	
	4265 Dec 11 23:49	0°♒		max. Earth dist.	4270 Jul 16 03:42	14°♑22'10	2.46287 AU
				morning rise	4270 Jul 30 17:33	24°♑39'19	
conjunction	4266 Jan 14 09:38	23°♒52'37	0°-48'-33		4270 Aug 07 09:53	0°♒	
minimum elong	4266 Jan 14 07:57	23°♒49'34	0°48'33		4270 Sep 20 22:50	0°♓	
	4266 Jan 22 18:04	0°♓			4270 Nov 07 03:46	0°♑	
	4266 Mar 03 15:45	0°♈			4270 Dec 28 06:13	0°♌	
morning rise	4266 Mar 11 23:26	6°♈23'19			4271 Mar 01 14:34	0°♑	
	4266 Apr 11 08:57	0°♑		retrograde	4271 Apr 11 01:32	8°♑05'02	
	4266 May 19 16:38	0°♉			4271 May 17 22:39	30°♒♌	
	4266 Jun 27 12:11	0°♐		opposition	4271 May 19 08:38	29°♌27'30	0°38'22
	4266 Aug 06 19:13	0°♑		greatest brilliancy	4271 May 19 13:30	29°♌22'49	-1.5m
asc. node	4266 Aug 20 22:43	10°♑08'07		min. Earth dist.	4271 May 24 20:18	27°♌21'04	0.62110 AU
	4266 Sep 18 19:17	0°♒		desc. node	4271 Jun 04 22:27	23°♌27'49	
	4266 Nov 05 23:57	0°♓		direct	4271 Jun 29 13:33	19°♌30'32	
	4267 Jan 20 04:16	0°♑			4271 Aug 13 11:04	0°♑	
retrograde	4267 Jan 30 07:35	0°♑38'33			4271 Oct 08 09:31	0°♒	
	4267 Feb 09 01:39	30°♒♓			4271 Nov 21 16:46	0°♓	
min. Earth dist.	4267 Mar 09 11:56	21°♓33'59	0.66439 AU		4272 Jan 01 00:17	0°♈	
opposition	4267 Mar 11 14:20	20°♓43'29	4°26'48		4272 Feb 08 15:15	0°♑	
greatest brilliancy	4267 Mar 11 03:21	20°♓54'29	-1.3m		4272 Mar 17 23:24	0°♉	
direct	4267 Apr 20 11:00	11°♓14'17		asc. node	4272 Apr 11 20:04	19°♏10'41	
	4267 Jun 26 00:52	0°♑			4272 Apr 26 02:06	0°♐	
	4267 Aug 21 17:03	0°♌		evening set	4272 May 28 01:03	23°♐41'57	
desc. node	4267 Aug 31 01:06	5°♌29'58			4272 Jun 05 17:40	0°♑	
	4267 Oct 09 10:13	0°♑			4272 Jul 18 08:19	0°♒	
	4267 Nov 22 23:38	0°♒					
	4268 Jan 03 13:39	0°♓		conjunction	4272 Jul 24 15:40	4°♒19'08	0°56'11
evening set	4268 Jan 13 10:34	7°♓22'35		minimum elong	4272 Jul 24 13:59	4°♒16'16	0°56'10
	4268 Feb 12 01:33	0°♈		max. Earth dist.	4272 Aug 20 17:20	22°♒32'47	2.58505 AU
max. Earth dist.	4268 Feb 13 01:39	0°♈46'39	2.38041 AU		4272 Aug 31 23:59	0°♓	
				morning rise	4272 Sep 14 02:17	8°♓33'54	
conjunction	4268 Mar 15 05:27	25°♈09'47	-1°-1'-24		4272 Oct 17 11:50	0°♑	
minimum elong	4268 Mar 15 07:21	25°♈13'32	1°01'25		4272 Dec 04 16:39	0°♌	
	4268 Mar 21 08:35	0°♑			4273 Jan 24 05:18	0°♑	
	4268 Apr 28 08:27	0°♉			4273 Mar 21 21:48	0°♒	

desc. node	4273 Apr 21 21:16	12°♄32'57			4278 Aug 22 04:36	0°♄	
retrograde	4273 May 27 08:35	19°♄00'54		evening set	4278 Oct 02 22:00	26°♄12'17	
opposition	4273 Jul 01 10:46	11°♄50'03	-3°-6'-51		4278 Oct 08 21:07	0°♄	
greatest brilliancy	4273 Jul 02 18:27	11°♄22'06	-2.0m	max. Earth dist.	4278 Oct 31 02:00	14°♄15'40	2.64194 AU
min. Earth dist.	4273 Jul 09 18:43	8°♄54'37	0.50783 AU				
direct	4273 Aug 08 23:25	3°♄01'36		conjunction	4278 Nov 17 04:44	25°♄24'53	0°14'01
	4273 Oct 21 13:05	0°♄		minimum elong	4278 Nov 17 05:11	25°♄25'37	0°14'00
	4273 Dec 05 11:39	0°♄		behind sun begin	4278 Nov 16 19:45	25°♄10'09	
	4274 Jan 15 02:08	0°♄		behind sun end	4278 Nov 17 14:37	25°♄41'06	
	4274 Feb 23 17:59	0°♄			4278 Nov 24 03:57	0°♄	
asc. node	4274 Feb 27 18:32	3°♄01'59		desc. node	4278 Dec 12 18:35	12°♄22'58	
	4274 Apr 04 23:55	0°♄		morning rise	4279 Jan 01 16:02	25°♄51'02	
	4274 May 16 16:33	0°♄			4279 Jan 07 17:26	0°♄	
	4274 Jun 29 04:42	0°♄			4279 Feb 19 12:54	0°♄	
evening set	4274 Jul 18 11:27	12°♄54'38			4279 Apr 01 19:05	0°♄	
	4274 Aug 13 10:51	0°♄			4279 May 11 22:11	0°♄	
					4279 Jun 20 14:58	0°♄	
conjunction	4274 Sep 05 20:28	15°♄09'30	1°07'39		4279 Jul 31 02:08	0°♄	
minimum elong	4274 Sep 05 20:45	15°♄09'57	1°07'39		4279 Sep 12 15:38	0°♄	
max. Earth dist.	4274 Sep 15 15:33	21°♄27'07	2.65857 AU	asc. node	4279 Oct 20 15:57	21°♄55'45	
	4274 Sep 29 00:22	0°♄			4279 Nov 08 07:05	0°♄	
morning rise	4274 Oct 21 16:51	14°♄25'42		retrograde	4279 Dec 10 05:30	6°♄22'31	
	4274 Nov 15 07:28	0°♄			4280 Jan 09 15:09	30°♄	
	4275 Jan 01 22:52	0°♄		min. Earth dist.	4280 Jan 10 13:17	29°♄39'19	0.54206 AU
	4275 Feb 19 00:43	0°♄		greatest brilliancy	4280 Jan 16 07:15	27°♄26'59	-1.9m
desc. node	4275 Mar 09 19:57	11°♄33'53		opposition	4280 Jan 17 18:11	26°♄53'19	3°56'15
	4275 Apr 09 11:17	0°♄		direct	4280 Feb 22 06:37	18°♄57'31	
	4275 Jun 03 02:10	0°♄			4280 Apr 09 15:45	0°♄	
retrograde	4275 Aug 05 01:10	18°♄41'12			4280 Jun 09 21:56	0°♄	
opposition	4275 Sep 04 10:59	13°♄35'32	-6°-38'-13		4280 Aug 01 04:19	0°♄	
greatest brilliancy	4275 Sep 05 21:35	13°♄11'32	-2.8m		4280 Sep 19 06:16	0°♄	
min. Earth dist.	4275 Sep 09 00:14	12°♄20'05	0.38533 AU	desc. node	4280 Oct 29 17:04	25°♄57'28	
direct	4275 Oct 06 00:01	7°♄58'47			4280 Nov 04 20:17	0°♄	
	4275 Dec 09 03:28	0°♄		evening set	4280 Nov 08 16:40	2°♄33'07	
asc. node	4276 Jan 15 16:56	23°♄14'05		max. Earth dist.	4280 Nov 26 14:14	14°♄34'11	2.55464 AU
	4276 Jan 25 22:48	0°♄			4280 Dec 19 00:31	0°♄	
	4276 Mar 10 07:16	0°♄					
	4276 Apr 23 16:49	0°♄		conjunction	4280 Dec 26 18:44	5°♄26'05	0°-31'-53
	4276 Jun 08 02:25	0°♄		minimum elong	4280 Dec 26 17:32	5°♄23'59	0°31'52
	4276 Jul 24 14:40	0°♄			4281 Jan 29 23:52	0°♄	
evening set	4276 Aug 27 03:42	21°♄20'42		morning rise	4281 Feb 16 13:29	12°♄58'35	
	4276 Sep 09 19:13	0°♄			4281 Mar 11 04:06	0°♄	
max. Earth dist.	4276 Oct 07 17:40	17°♄43'47	2.67745 AU		4281 Apr 19 03:42	0°♄	
					4281 May 27 16:41	0°♄	
conjunction	4276 Oct 11 21:47	20°♄22'57	0°50'14		4281 Jul 05 16:55	0°♄	
minimum elong	4276 Oct 11 22:51	20°♄24'39	0°50'13		4281 Aug 15 07:23	0°♄	
	4276 Oct 26 23:50	0°♄		asc. node	4281 Sep 06 14:18	15°♄37'58	
morning rise	4276 Nov 24 23:08	18°♄35'41			4281 Sep 28 03:52	0°♄	
	4276 Dec 12 13:43	0°♄			4281 Nov 18 23:24	0°♄	
desc. node	4277 Jan 24 19:10	28°♄24'58		retrograde	4282 Jan 16 18:21	17°♄09'29	
	4277 Jan 27 04:21	0°♄		min. Earth dist.	4282 Feb 22 06:24	8°♄37'57	0.64210 AU
	4277 Mar 12 18:20	0°♄		opposition	4282 Feb 25 21:18	7°♄10'58	4°39'46
	4277 Apr 25 11:13	0°♄		greatest brilliancy	4282 Feb 25 01:49	7°♄30'28	-1.4m
	4277 Jun 07 18:58	0°♄			4282 Mar 19 07:50	30°♄	
	4277 Jul 22 08:14	0°♄		direct	4282 Apr 05 19:35	28°♄00'40	
	4277 Sep 14 08:03	0°♄			4282 Apr 24 16:13	0°♄	
retrograde	4277 Oct 19 22:17	8°♄06'19			4282 Jul 08 02:32	0°♄	
min. Earth dist.	4277 Nov 15 08:26	3°♄29'18	0.40978 AU		4282 Aug 30 02:21	0°♄	
opposition	4277 Nov 22 18:20	1°♄09'48	0°-39'-24	desc. node	4282 Sep 16 15:35	10°♄43'38	
greatest brilliancy	4277 Nov 22 12:02	1°♄14'45	-2.7m		4282 Oct 16 21:20	0°♄	
	4277 Nov 26 12:45	30°♄			4282 Nov 30 05:17	0°♄	
asc. node	4277 Dec 02 17:08	28°♄15'11		evening set	4282 Dec 23 07:04	16°♄25'08	
direct	4277 Dec 23 12:59	25°♄23'56		max. Earth dist.	4283 Jan 08 07:50	28°♄08'03	2.42800 AU
	4278 Jan 20 10:58	0°♄			4283 Jan 10 20:23	0°♄	
	4278 Mar 25 20:13	0°♄					
	4278 May 16 04:03	0°♄		conjunction	4283 Feb 17 17:46	28°♄39'32	-1°-4'-35
	4278 Jul 04 13:24	0°♄		minimum elong	4283 Feb 17 17:11	28°♄38'26	1°04'36

	4283 Feb 19 11:31	0° H		greatest brilliancy	4288 Jun 13 06:56	23° J 51'40	-1.8m
	4283 Mar 29 21:50	0° Y		min. Earth dist.	4288 Jun 20 03:27	21° J 20'08	0.55798 AU
morning rise	4283 Apr 25 06:20	20° Y 46'25		direct	4288 Jul 22 16:46	14° J 36'40	
	4283 May 06 23:50	0° B			4288 Sep 14 17:55	0° Z	
	4283 Jun 14 14:40	0° II			4288 Nov 04 03:03	0° \approx	
asc. node	4283 Jul 24 15:25	0° S			4288 Dec 16 04:04	0° H	
	4283 Jul 25 14:11	0° S 41'35			4289 Jan 24 14:56	0° Y	
	4283 Sep 04 23:04	0° Q			4289 Mar 04 13:19	0° B	
	4283 Oct 20 18:30	0° M		asc. node	4289 Mar 16 11:13	9° B 06'21	
	4283 Dec 12 13:00	0° A			4289 Apr 13 04:51	0° II	
retrograde	4284 Feb 20 05:52	21° A 19'58			4289 May 24 08:47	0° S	
opposition	4284 Mar 31 10:12	11° A 38'41	3°44'08	evening set	4289 Jun 30 05:38	25° S 45'58	
greatest brilliancy	4284 Mar 31 10:52	11° A 38'02	-1.2m		4289 Jul 06 10:20	0° Q	
min. Earth dist.	4284 Mar 31 16:10	11° A 32'44	0.67912 AU		4289 Aug 20 09:05	0° M	
direct	4284 May 11 08:07	1° A 48'38					
desc. node	4284 Aug 03 14:25	29° A 34'57		conjunction	4289 Aug 21 03:32	0° M 30'13	1°07'22
	4284 Aug 04 09:33	0° M		minimum elong	4289 Aug 21 03:07	0° M 29'33	1°07'23
	4284 Sep 25 03:04	0° J		max. Earth dist.	4289 Sep 06 02:25	10° M 53'44	2.63629 AU
	4284 Nov 09 13:00	0° Z			4289 Oct 05 20:08	0° A	
	4284 Dec 21 07:59	0° \approx		morning rise	4289 Oct 07 15:03	1° A 08'23	
	4285 Jan 29 19:11	0° H			4289 Nov 22 08:40	0° M	
evening set	4285 Feb 20 13:49	17° H 01'33			4290 Jan 09 18:45	0° J	
	4285 Mar 09 00:19	0° Y			4290 Feb 28 18:29	0° Z	
	4285 Apr 15 23:07	0° B		desc. node	4290 Mar 26 11:09	14° Z 38'52	
					4290 Apr 24 13:26	0° \approx	
conjunction	4285 Apr 30 04:36	11° B 09'09	0°-28'-17	retrograde	4290 Jul 05 12:06	22° \approx 13'44	
minimum elong	4285 Apr 30 07:15	11° B 14'20	0°28'16	opposition	4290 Aug 06 14:19	16° \approx 22'07	-5°-46'-52
	4285 May 24 13:36	0° II		greatest brilliancy	4290 Aug 08 16:14	15° \approx 43'34	-2.5m
asc. node	4285 Jun 11 13:27	13° II 38'35		min. Earth dist.	4290 Aug 14 08:19	13° \approx 59'17	0.42623 AU
max. Earth dist.	4285 Jun 20 19:06	20° II 32'42	2.40814 AU	direct	4290 Sep 10 08:23	9° \approx 21'44	
	4285 Jul 03 14:46	0° S			4290 Nov 10 11:04	0° H	
morning rise	4285 Jul 07 20:14	3° S 05'09			4290 Dec 27 04:39	0° Y	
	4285 Aug 14 17:12	0° Q		asc. node	4291 Feb 01 09:54	25° Y 37'49	
	4285 Sep 28 08:20	0° M			4291 Feb 07 12:08	0° B	
	4285 Nov 15 04:34	0° A			4291 Mar 21 10:49	0° II	
	4286 Jan 07 22:01	0° M			4291 May 03 09:33	0° S	
retrograde	4286 Mar 26 19:24	24° M 34'36			4291 Jun 16 20:17	0° Q	
opposition	4286 May 04 21:18	15° M 34'02	1°43'20		4291 Aug 01 17:50	0° M	
greatest brilliancy	4286 May 05 06:06	15° M 25'27	-1.3m	evening set	4291 Aug 13 02:48	7° M 19'22	
min. Earth dist.	4286 May 08 22:40	13° M 59'05	0.65012 AU		4291 Sep 17 14:39	0° A	
direct	4286 Jun 15 08:31	5° M 31'31					
desc. node	4286 Jun 21 13:13	5° M 45'39		conjunction	4291 Sep 28 20:28	7° A 09'01	0°59'39
	4286 Aug 29 13:37	0° J		minimum elong	4291 Sep 28 21:24	7° A 10'31	0°59'39
	4286 Oct 18 09:34	0° Z		max. Earth dist.	4291 Sep 30 00:54	7° A 54'13	2.67672 AU
	4286 Nov 30 10:32	0° \approx			4291 Nov 03 18:41	0° M	
	4287 Jan 09 07:07	0° H		morning rise	4291 Nov 12 05:23	5° M 23'01	
	4287 Feb 16 16:14	0° Y			4291 Dec 20 15:55	0° J	
	4287 Mar 26 19:24	0° B			4292 Feb 04 23:45	0° Z	
asc. node	4287 Apr 29 11:52	26° B 02'47		desc. node	4292 Feb 11 10:27	4° Z 12'07	
evening set	4287 May 04 02:54	29° B 34'01			4292 Mar 21 19:51	0° \approx	
	4287 May 04 16:35	0° II			4292 May 06 13:37	0° H	
	4287 Jun 14 02:12	0° S			4292 Jun 22 13:29	0° Y	
					4292 Aug 17 16:40	0° B	
conjunction	4287 Jul 05 09:32	15° S 16'04	0°40'43	retrograde	4292 Sep 23 01:57	8° B 04'26	
minimum elong	4287 Jul 05 07:26	15° S 12'21	0°40'41	min. Earth dist.	4292 Oct 20 11:03	3° B 35'33	0.37617 AU
	4287 Jul 26 11:27	0° Q		opposition	4292 Oct 24 06:28	2° B 32'04	-3°-50'-56
max. Earth dist.	4287 Aug 09 17:06	9° Q 44'53	2.54233 AU	greatest brilliancy	4292 Oct 23 17:27	2° B 41'08	-2.9m
morning rise	4287 Aug 29 13:32	23° Q 05'34			4292 Nov 02 23:33	30° R Y	
	4287 Sep 09 00:09	0° M		direct	4292 Nov 22 19:01	27° Y 32'09	
	4287 Oct 25 15:13	0° A			4292 Dec 12 11:12	0° B	
	4287 Dec 13 13:33	0° M		asc. node	4292 Dec 19 08:23	1° B 52'18	
	4288 Feb 04 12:22	0° J			4293 Feb 16 17:29	0° II	
retrograde	4288 Apr 18 12:50	0° Z			4293 Apr 07 09:49	0° S	
desc. node	4288 May 07 03:12	1° Z 55'44			4293 May 25 09:00	0° Q	
	4288 May 08 11:41	1° Z 55'04			4293 Jul 12 07:11	0° M	
	4288 May 24 13:58	30° R J			4293 Aug 29 05:27	0° A	
opposition	4288 Jun 12 16:44	24° J 04'46	-1°-29'-19	evening set	4293 Sep 18 18:39	12° A 56'10	

	4293 Oct 15 15:44	0°♌		greatest brilliancy	4298 Jun 15 10:26	24°♊39'24	1.2m
max. Earth dist.	4293 Oct 21 18:12	3°♌54'16	2.66238 AU		4298 Jun 22 09:43	0°♊	
					4298 Aug 01 13:05	0°♊	
conjunction	4293 Nov 02 21:18	11°♌42'02	0°29'45	asc. node	4298 Aug 11 06:15	7°♊01'28	
minimum elong	4293 Nov 02 22:09	11°♌43'24	0°29'44		4298 Sep 13 04:28	0°♊	
	4293 Dec 01 00:01	0°♊			4298 Oct 30 03:46	0°♊	
morning rise	4293 Dec 17 08:43	10°♊48'58			4298 Dec 28 13:47	0°♊	
desc. node	4293 Dec 29 09:15	18°♊50'47		retrograde	4299 Feb 06 23:05	8°♊35'07	
	4294 Jan 14 21:31	0°♊			4299 Mar 16 02:05	30°♊	
	4294 Feb 27 06:24	0°♊		min. Earth dist.	4299 Mar 17 23:38	29°♊14'32	0.67240 AU
	4294 Apr 10 05:47	0°♊		opposition	4299 Mar 19 06:12	28°♊43'57	4°14'03
	4294 May 21 04:32	0°♊		greatest brilliancy	4299 Mar 18 23:39	28°♊50'29	-1.2m
	4294 Jun 30 20:46	0°♊		direct	4299 Apr 28 13:27	19°♊06'24	
	4294 Aug 11 21:47	0°♊			4299 Jun 15 16:41	0°♊	
	4294 Sep 29 06:05	0°♊			4299 Aug 15 15:43	0°♌	
asc. node	4294 Nov 06 08:41	15°♊00'33		desc. node	4299 Aug 21 05:12	3°♌10'22	
retrograde	4294 Nov 22 13:11	16°♊49'42			4299 Oct 04 06:24	0°♊	
min. Earth dist.	4294 Dec 21 13:30	10°♊58'59	0.48968 AU		4299 Nov 18 02:53	0°♊	
greatest brilliancy	4294 Dec 28 10:46	8°♊28'15	-2.2m		4299 Dec 29 19:09	0°♊	
opposition	4294 Dec 29 17:23	8°♊00'08	2°49'04	evening set	4300 Jan 26 15:29	21°♊01'10	
direct	4295 Feb 01 12:52	0°♊48'21			4300 Feb 07 07:05	0°♊	
	4295 Apr 27 15:07	0°♊			4300 Mar 17 13:22	0°♊	
	4295 Jun 20 12:28	0°♊					
	4295 Aug 09 21:53	0°♊		conjunction	4300 Apr 01 09:44	11°♊44'44	0°-53'-6
	4295 Sep 27 07:30	0°♌		minimum elong	4300 Apr 01 12:53	11°♊50'57	0°53'06
evening set	4295 Oct 25 14:19	18°♌07'23		max. Earth dist.	4300 Apr 08 12:49	17°♊23'09	2.36865 AU
	4295 Nov 12 17:17	0°♊			4300 Apr 24 12:29	0°♊	
max. Earth dist.	4295 Nov 16 04:12	2°♊17'23	2.59461 AU		4300 Jun 02 01:55	0°♊	
desc. node	4295 Nov 16 07:44	2°♊23'14		morning rise	4300 Jun 12 02:46	7°♊39'15	
				asc. node	4300 Jun 29 05:34	20°♊31'25	
conjunction	4295 Dec 11 02:16	19°♊03'18	0°-13'-51		4300 Jul 12 01:21	0°♊	
minimum elong	4295 Dec 11 01:46	19°♊02'25	0°13'51		4300 Aug 23 03:30	0°♊	
behind sun begin	4295 Dec 10 15:22	18°♊44'43			4300 Oct 07 00:20	0°♊	
behind sun end	4295 Dec 11 12:09	19°♊20'08			4300 Nov 24 22:29	0°♊	
	4295 Dec 27 00:06	0°♊			4301 Jan 23 03:13	0°♌	
morning rise	4296 Jan 28 13:29	22°♊59'48		retrograde	4301 Mar 13 13:13	11°♌39'29	
	4296 Feb 07 06:12	0°♊		opposition	4301 Apr 22 04:56	2°♌20'15	2°37'39
	4296 Mar 18 19:07	0°♊		greatest brilliancy	4301 Apr 22 12:52	2°♌12'25	-1.3m
	4296 Apr 27 03:29	0°♊		min. Earth dist.	4301 Apr 24 18:43	1°♌19'20	0.66927 AU
	4296 Jun 05 00:33	0°♊			4301 Apr 28 04:09	30°♌	
	4296 Jul 14 09:12	0°♊		direct	4301 Jun 02 15:21	22°♌19'04	
	4296 Aug 24 13:48	0°♊		desc. node	4301 Jul 09 04:19	29°♌12'18	
asc. node	4296 Sep 23 08:23	20°♊06'50			4301 Jul 11 11:20	0°♌	
	4296 Oct 09 03:15	0°♊			4301 Sep 10 22:01	0°♊	
	4296 Dec 13 00:30	0°♊			4301 Oct 28 05:42	0°♊	
retrograde	4297 Jan 02 14:21	2°♊40'11			4301 Dec 09 14:27	0°♊	
	4297 Jan 22 00:38	30°♌			4302 Jan 18 05:33	0°♊	
min. Earth dist.	4297 Feb 06 04:56	24°♌47'02	0.60963 AU	greatest brilliancy	4302 Feb 15 13:37	22°♊09'50	1.2m
greatest brilliancy	4297 Feb 10 04:11	23°♌12'27	-1.5m		4302 Feb 25 11:53	0°♊	
opposition	4297 Feb 11 07:51	22°♌44'56	4°38'59		4302 Apr 04 12:16	0°♊	
direct	4297 Mar 21 02:11	13°♌58'47		evening set	4302 Apr 07 08:09	2°♊13'06	
	4297 May 20 04:32	0°♊			4302 May 13 05:37	0°♊	
	4297 Jul 17 23:25	0°♊		asc. node	4302 May 17 05:16	3°♊01'57	
	4297 Sep 06 22:11	0°♌					
desc. node	4297 Oct 03 06:17	16°♌29'32		conjunction	4302 Jun 13 04:07	23°♊12'22	0°17'50
	4297 Oct 24 02:42	0°♊		minimum elong	4302 Jun 13 02:44	23°♊09'48	0°17'49
evening set	4297 Dec 04 15:48	28°♊07'59			4302 Jun 22 10:30	0°♊	
	4297 Dec 07 07:59	0°♊		max. Earth dist.	4302 Jul 27 06:30	24°♊52'12	2.49254 AU
max. Earth dist.	4297 Dec 19 00:17	8°♊13'57	2.48005 AU		4302 Aug 03 15:28	0°♊	
	4298 Jan 18 01:30	0°♊		morning rise	4302 Aug 12 04:30	5°♊53'17	
					4302 Sep 17 02:42	0°♊	
conjunction	4298 Jan 25 22:50	5°♊50'52	0°-56'-25		4302 Nov 03 00:22	0°♊	
minimum elong	4298 Jan 25 21:12	5°♊47'49	0°56'25		4302 Dec 23 02:05	0°♌	
	4298 Feb 26 20:54	0°♊			4303 Feb 18 15:48	0°♊	
morning rise	4298 Mar 26 20:37	21°♊41'28		retrograde	4303 Apr 21 08:26	16°♊39'58	
	4298 Apr 06 11:26	0°♊		desc. node	4303 May 27 03:27	9°♊01'24	
	4298 May 14 16:40	0°♊		opposition	4303 May 29 02:24	8°♊17'05	0°-4'-41

greatest brilliancy	4303 Mar 29 13:51	13°♏50'47	-2.1m		4308 Jun 03 19:36	0°♏	
min. Earth dist.	4303 Jun 04 07:56	5°♏55'10	0.60096 AU		4308 Jul 20 17:25	0°♏	
	4303 Jun 23 19:00	30°♏		evening set	4308 Sep 05 12:09	29°♏36'10	
direct	4303 Jul 08 23:48	28°♏26'56			4308 Sep 06 03:13	0°♏	
	4303 Jul 24 22:32	0°♏		max. Earth dist.	4308 Oct 13 21:36	23°♏56'36	2.67443 AU
	4303 Oct 02 01:15	0°♏					
	4303 Nov 16 17:07	0°♏		conjunction	4308 Oct 20 21:43	28°♏24'30	0°43'23
	4303 Dec 27 11:40	0°♏		minimum elong	4308 Oct 20 22:46	28°♏26'10	0°43'23
	4304 Feb 04 07:59	0°♏			4308 Oct 23 09:33	0°♏	
	4304 Mar 13 19:59	0°♏		morning rise	4308 Dec 03 23:12	26°♏47'43	
asc. node	4304 Apr 03 02:59	15°♏37'29			4308 Dec 08 21:11	0°♏	
	4304 Apr 22 02:04	0°♏		desc. node	4309 Jan 16 00:01	25°♏10'03	
	4304 Jun 01 20:50	0°♏			4309 Jan 23 05:13	0°♏	
evening set	4304 Jun 10 20:14	6°♏25'14			4309 Mar 08 07:27	0°♏	
	4304 Jul 14 14:19	0°♏			4309 Apr 20 06:40	0°♏	
					4309 Jun 01 12:04	0°♏	
conjunction	4304 Aug 05 03:16	14°♏36'41	1°02'00		4309 Jul 14 00:54	0°♏	
minimum elong	4304 Aug 05 02:02	14°♏34'37	1°02'00		4309 Aug 29 05:30	0°♏	
max. Earth dist.	4304 Aug 28 00:19	29°♏48'28	2.60566 AU	retrograde	4309 Nov 03 02:55	23°♏35'57	
	4304 Aug 28 07:20	0°♏		asc. node	4309 Nov 24 01:25	20°♏27'21	
morning rise	4304 Sep 23 21:53	17°♏18'42		min. Earth dist.	4309 Nov 30 02:44	18°♏36'40	0.43649 AU
	4304 Oct 13 17:44	0°♏		opposition	4309 Dec 08 07:22	15°♏52'16	0°52'52
	4304 Nov 30 14:54	0°♏		greatest brilliancy	4309 Dec 07 20:25	16°♏01'29	-2.5m
	4305 Jan 19 04:38	0°♏		direct	4310 Jan 09 05:36	9°♏34'12	
	4305 Mar 13 11:50	0°♏			4310 Mar 16 15:15	0°♏	
desc. node	4305 Apr 13 01:58	14°♏54'41			4310 May 10 14:01	0°♏	
	4305 Jun 03 12:23	0°♏			4310 Jun 30 03:45	0°♏	
retrograde	4305 Jun 10 04:05	0°♏16'01			4310 Aug 18 07:31	0°♏	
	4305 Jun 16 17:19	30°♏			4310 Oct 05 05:37	0°♏	
opposition	4305 Jul 14 07:59	23°♏31'05	-4°-6'-28	evening set	4310 Oct 12 01:59	4°♏21'57	
greatest brilliancy	4305 Jul 16 01:16	22°♏56'01	-2.2m	max. Earth dist.	4310 Nov 06 18:32	20°♏56'52	2.62734 AU
min. Earth dist.	4305 Jul 22 21:24	20°♏37'51	0.47858 AU		4310 Nov 20 13:32	0°♏	
direct	4305 Aug 20 18:23	15°♏14'07					
	4305 Oct 10 16:40	0°♏		conjunction	4310 Nov 26 15:33	4°♏01'43	0°04'05
	4305 Nov 28 18:59	0°♏		minimum elong	4310 Nov 26 15:42	4°♏01'57	0°04'05
	4306 Jan 09 13:46	0°♏		behind sun begin	4310 Nov 25 20:57	3°♏30'51	
	4306 Feb 18 20:27	0°♏		behind sun end	4310 Nov 27 10:27	4°♏33'05	
asc. node	4306 Feb 19 02:08	0°♏10'34		desc. node	4310 Dec 03 22:29	8°♏53'09	
	4306 Mar 31 12:37	0°♏			4311 Jan 04 00:57	0°♏	
	4306 May 12 13:03	0°♏		morning rise	4311 Jan 11 22:32	5°♏28'01	
	4306 Jun 25 07:23	0°♏			4311 Feb 15 15:43	0°♏	
evening set	4306 Jul 29 04:13	22°♏27'18			4311 Mar 28 15:31	0°♏	
	4306 Aug 09 17:44	0°♏			4311 May 07 11:04	0°♏	
					4311 Jun 15 19:15	0°♏	
conjunction	4306 Sep 15 10:19	23°♏38'41	1°05'48		4311 Jul 25 17:29	0°♏	
minimum elong	4306 Sep 15 10:55	23°♏39'38	1°05'48		4311 Sep 06 01:03	0°♏	
max. Earth dist.	4306 Sep 22 00:13	27°♏50'58	2.66750 AU	asc. node	4311 Oct 12 00:08	22°♏33'33	
	4306 Sep 25 09:05	0°♏			4311 Oct 25 17:18	0°♏	
morning rise	4306 Oct 30 14:20	22°♏23'24		retrograde	4311 Dec 20 10:59	16°♏45'42	
	4306 Nov 11 14:25	0°♏		min. Earth dist.	4312 Jan 22 00:09	9°♏36'07	0.56833 AU
	4306 Dec 28 22:01	0°♏		greatest brilliancy	4312 Jan 27 03:03	7°♏36'13	-1.7m
	4307 Feb 14 05:53	0°♏		opposition	4312 Jan 28 12:49	7°♏03'11	4°19'27
desc. node	4307 Mar 01 01:00	9°♏20'42			4312 Feb 20 10:40	30°♏	
	4307 Apr 03 00:34	0°♏		direct	4312 Mar 04 21:51	28°♏47'19	
	4307 May 22 18:44	0°♏			4312 Mar 19 05:31	0°♏	
	4307 Jul 23 02:24	0°♏			4312 Jun 03 18:33	0°♏	
retrograde	4307 Aug 24 11:52	6°♏03'03			4312 Jul 27 17:11	0°♏	
opposition	4307 Sep 23 10:45	1°♏06'57	-6°-15'-52		4312 Sep 15 09:02	0°♏	
greatest brilliancy	4307 Sep 24 02:43	0°♏56'23	-2.9m	desc. node	4312 Oct 20 21:03	22°♏36'16	
min. Earth dist.	4307 Sep 25 05:04	0°♏38'58	0.37312 AU		4312 Nov 01 03:57	0°♏	
	4307 Sep 27 16:38	30°♏		evening set	4312 Nov 18 18:32	11°♏44'58	
direct	4307 Oct 23 12:04	26°♏02'18		max. Earth dist.	4312 Dec 05 01:15	22°♏50'48	2.52954 AU
	4307 Nov 17 11:22	0°♏			4312 Dec 15 08:51	0°♏	
asc. node	4308 Jan 07 02:20	23°♏59'26					
	4308 Jan 17 03:27	0°♏		conjunction	4313 Jan 07 02:03	16°♏04'34	0°-41'-49
	4308 Mar 04 03:09	0°♏		minimum elong	4313 Jan 07 00:32	16°♏01'51	0°41'48
	4308 Apr 18 17:36	0°♏			4313 Jan 26 06:29	0°♏	

morning rise	4313 Mar 02 07:35	26° \approx 11'00		greatest brilliancy	4318 May 14 08:15	23° \mathbb{M} 45'53	-1.4m
	4313 Mar 07 07:55	0° \mathbb{H}		min. Earth dist.	4318 May 18 21:11	22° \mathbb{M} 00'30	0.63538 AU
	4313 Apr 15 04:18	0° \mathbb{Y}		desc. node	4318 Jun 12 17:44	14° \mathbb{M} 46'06	
	4313 May 23 14:15	0° \mathbb{B}		direct	4318 Jun 24 09:44	13° \mathbb{M} 52'33	
	4313 Jul 01 11:06	0° \mathbb{II}			4318 Aug 21 09:41	0° \mathbb{X}	
	4313 Aug 10 19:33	0° \mathbb{S}			4318 Oct 13 04:46	0° \mathbb{Z}	
asc. node	4313 Aug 28 23:44	12° \mathbb{S} 55'59			4318 Nov 25 23:02	0° \approx	
	4313 Sep 23 00:57	0° \mathbb{Q}			4319 Jan 05 02:21	0° \mathbb{H}	
	4313 Nov 11 05:41	0° \mathbb{M}			4319 Feb 12 14:40	0° \mathbb{Y}	
retrograde	4314 Jan 25 13:46	25° \mathbb{M} 26'05			4319 Mar 22 20:06	0° \mathbb{B}	
min. Earth dist.	4314 Mar 04 00:24	16° \mathbb{M} 36'08	0.65563 AU	asc. node	4319 Apr 20 20:50	22° \mathbb{B} 26'24	
opposition	4314 Mar 06 19:41	15° \mathbb{M} 28'45	4°33'49		4319 Apr 30 19:20	0° \mathbb{II}	
greatest brilliancy	4314 Mar 06 04:52	15° \mathbb{M} 43'34	-1.3m	evening set	4319 May 19 13:46	14° \mathbb{II} 04'36	
direct	4314 Apr 15 07:20	6° \mathbb{M} 07'33			4319 Jun 10 06:45	0° \mathbb{S}	
	4314 Jul 01 15:09	0° \mathbb{A}					
	4314 Aug 25 14:18	0° \mathbb{M}		conjunction	4319 Jul 18 05:16	26° \mathbb{S} 52'54	0°50'29
desc. node	4314 Sep 07 20:31	7° \mathbb{M} 56'30		minimum elong	4319 Jul 18 03:20	26° \mathbb{S} 49'32	0°50'28
	4314 Oct 12 22:53	0° \mathbb{X}			4319 Jul 22 17:32	0° \mathbb{Q}	
	4314 Nov 26 11:13	0° \mathbb{Z}		max. Earth dist.	4319 Aug 17 23:18	17° \mathbb{Q} 50'34	2.56680 AU
evening set	4315 Jan 04 22:12	28° \mathbb{Z} 22'36			4319 Sep 05 06:17	0° \mathbb{M}	
	4315 Jan 07 02:51	0° \approx		morning rise	4319 Sep 09 04:37	2° \mathbb{M} 35'03	
max. Earth dist.	4315 Jan 25 10:01	13° \approx 42'41	2.39991 AU		4319 Oct 21 18:10	0° \mathbb{A}	
	4315 Feb 15 16:57	0° \mathbb{H}			4319 Dec 09 04:39	0° \mathbb{M}	
					4320 Jan 29 12:56	0° \mathbb{X}	
conjunction	4315 Mar 05 05:55	13° \mathbb{H} 38'21	-1°-4'-30		4320 Mar 30 00:33	0° \mathbb{Z}	
minimum elong	4315 Mar 05 06:39	13° \mathbb{H} 39'49	1°04'31	desc. node	4320 Apr 29 16:29	9° \mathbb{Z} 42'22	
	4315 Mar 26 01:39	0° \mathbb{Y}		retrograde	4320 May 19 04:58	11° \mathbb{Z} 50'23	
	4315 May 03 02:19	0° \mathbb{B}		opposition	4320 Jun 24 00:32	4° \mathbb{Z} 20'23	-2°-23'-49
morning rise	4315 May 13 21:41	8° \mathbb{B} 28'34		greatest brilliancy	4320 Jun 25 00:28	3° \mathbb{Z} 58'48	-1.9m
	4315 Jun 10 16:10	0° \mathbb{II}		min. Earth dist.	4320 Jul 02 00:53	1° \mathbb{Z} 27'35	0.53100 AU
asc. node	4315 Jul 16 21:42	27° \mathbb{II} 15'10			4320 Jul 06 08:06	30° \mathbb{R} \mathbb{X}	
	4315 Jul 20 15:27	0° \mathbb{S}		direct	4320 Aug 02 07:14	25° \mathbb{X} 11'49	
	4315 Aug 31 19:31	0° \mathbb{Q}			4320 Aug 30 07:14	0° \mathbb{Z}	
	4315 Oct 16 03:09	0° \mathbb{M}			4320 Oct 28 07:17	0° \approx	
	4315 Dec 05 22:21	0° \mathbb{A}			4320 Dec 10 18:07	0° \mathbb{H}	
retrograde	4316 Feb 28 21:26	29° \mathbb{A} 00'47			4321 Jan 19 18:47	0° \mathbb{Y}	
opposition	4316 Apr 08 22:32	19° \mathbb{A} 26'24	3°22'15		4321 Feb 28 01:36	0° \mathbb{B}	
greatest brilliancy	4316 Apr 09 02:22	19° \mathbb{A} 22'36	-1.2m	asc. node	4321 Mar 07 19:29	5° \mathbb{B} 52'51	
min. Earth dist.	4316 Apr 10 00:04	19° \mathbb{A} 01'03	0.67853 AU		4321 Apr 08 23:47	0° \mathbb{II}	
direct	4316 May 20 02:40	9° \mathbb{A} 31'20			4321 May 20 09:06	0° \mathbb{S}	
desc. node	4316 Jul 25 19:28	28° \mathbb{A} 42'13			4321 Jul 02 15:05	0° \mathbb{Q}	
	4316 Jul 28 12:20	0° \mathbb{M}		evening set	4321 Jul 11 20:04	6° \mathbb{Q} 13'28	
	4316 Sep 20 10:50	0° \mathbb{X}			4321 Aug 16 16:32	0° \mathbb{M}	
	4316 Nov 05 10:48	0° \mathbb{Z}					
	4316 Dec 17 10:26	0° \approx		conjunction	4321 Aug 31 06:08	9° \mathbb{M} 28'59	1°08'05
	4317 Jan 25 22:58	0° \mathbb{H}		minimum elong	4321 Aug 31 06:08	9° \mathbb{M} 29'00	1°08'05
	4317 Mar 05 04:05	0° \mathbb{Y}		max. Earth dist.	4321 Sep 12 16:45	17° \mathbb{M} 31'18	2.64958 AU
evening set	4317 Mar 09 09:13	3° \mathbb{Y} 20'07			4321 Oct 02 04:04	0° \mathbb{A}	
	4317 Apr 12 02:47	0° \mathbb{B}		morning rise	4321 Oct 16 18:14	9° \mathbb{A} 17'16	
					4321 Nov 18 12:51	0° \mathbb{M}	
conjunction	4317 May 17 13:50	27° \mathbb{B} 35'16	0°-11'-5		4322 Jan 05 11:25	0° \mathbb{X}	
minimum elong	4317 May 17 14:54	27° \mathbb{B} 37'19	0°11'06		4322 Feb 23 06:36	0° \mathbb{Z}	
behind sun begin	4317 May 16 17:37	26° \mathbb{B} 56'31		desc. node	4322 Mar 17 15:28	13° \mathbb{Z} 23'17	
behind sun end	4317 May 18 12:10	28° \mathbb{B} 18'04			4322 Apr 15 11:27	0° \approx	
	4317 May 20 17:24	0° \mathbb{II}			4322 Jun 17 04:02	0° \mathbb{H}	
asc. node	4317 Jun 02 20:44	9° \mathbb{II} 59'14		retrograde	4322 Jul 23 03:58	6° \mathbb{H} 57'34	
	4317 Jun 29 18:41	0° \mathbb{S}		opposition	4322 Aug 23 05:14	1° \mathbb{H} 33'56	-6°-26'-23
max. Earth dist.	4317 Jul 07 22:40	5° \mathbb{S} 56'43	2.43820 AU	greatest brilliancy	4322 Aug 25 02:22	1° \mathbb{H} 01'04	-2.7m
morning rise	4317 Jul 22 06:13	16° \mathbb{S} 13'26			4322 Aug 28 14:35	30° \mathbb{R} \approx	
	4317 Aug 10 20:47	0° \mathbb{Q}		min. Earth dist.	4322 Aug 29 12:42	29° \approx 44'14	0.40131 AU
	4317 Sep 24 08:45	0° \mathbb{M}		direct	4322 Sep 25 04:54	25° \approx 21'08	
	4317 Nov 10 17:44	0° \mathbb{A}			4322 Oct 21 19:20	0° \mathbb{H}	
	4318 Jan 01 15:51	0° \mathbb{M}			4322 Dec 18 13:55	0° \mathbb{Y}	
	4318 Mar 14 04:46	0° \mathbb{X}		asc. node	4323 Jan 23 17:49	24° \mathbb{Y} 10'26	
retrograde	4318 Apr 05 08:58	2° \mathbb{X} 41'22			4323 Feb 01 04:01	0° \mathbb{B}	
	4318 Apr 25 22:28	30° \mathbb{R} \mathbb{M}			4323 Mar 16 05:24	0° \mathbb{II}	
opposition	4318 May 14 01:06	23° \mathbb{M} 52'48	1°06'49		4323 Apr 28 20:27	0° \mathbb{S}	

	4323 Jun 12 18:07	0°♈			4328 Jul 09 19:53	0°♈	
	4323 Jul 28 22:34	0°♈			4328 Aug 19 14:01	0°♈	
evening set	4323 Aug 22 19:34	15°♈54'35		asc. node	4328 Sep 14 15:01	18°♈02'48	
	4323 Sep 13 23:09	0°♈			4328 Oct 02 22:11	0°♈	
max. Earth dist.	4323 Oct 06 04:17	14°♈06'39	2.67816 AU		4328 Nov 26 11:38	0°♈	
				retrograde	4329 Jan 11 18:49	11°♈33'39	
conjunction	4323 Oct 07 22:44	15°♈14'07	0°54'30	min. Earth dist.	4329 Feb 16 11:23	3°♈18'51	0.62889 AU
minimum elong	4323 Oct 07 23:46	15°♈15'46	0°54'30	opposition	4329 Feb 20 18:55	1°♈35'33	4°41'33
	4323 Oct 31 03:22	0°♈		greatest brilliancy	4329 Feb 19 19:37	1°♈58'48	-1.4m
morning rise	4323 Nov 21 02:00	13°♈23'47			4329 Feb 24 19:59	30°♈♈	
	4323 Dec 16 20:30	0°♈		direct	4329 Mar 31 05:55	22°♈35'21	
	4324 Jan 31 18:47	0°♈			4329 May 08 16:12	0°♈	
desc. node	4324 Feb 02 14:28	1°♈12'02			4329 Jul 12 15:36	0°♈	
	4324 Mar 16 21:15	0°♈			4329 Sep 02 17:51	0°♈	
	4324 Apr 30 09:11	0°♈		desc. node	4329 Sep 24 11:05	13°♈24'45	
	4324 Jun 13 22:49	0°♈			4329 Oct 20 07:39	0°♈	
	4324 Jul 31 04:54	0°♈			4329 Dec 03 15:55	0°♈	
retrograde	4324 Oct 09 18:58	25°♈51'34		evening set	4329 Dec 15 22:50	8°♈39'44	
min. Earth dist.	4324 Nov 05 05:36	21°♈24'49	0.39170 AU	max. Earth dist.	4329 Dec 30 12:56	19°♈08'02	2.45147 AU
opposition	4324 Nov 11 09:44	19°♈35'09	-2°00'-29		4330 Jan 14 09:14	0°♈	
greatest brilliancy	4324 Nov 10 19:53	19°♈45'25	-2.8m				
asc. node	4324 Dec 10 18:00	14°♈13'30		conjunction	4330 Feb 08 09:03	18°♈43'24	-1°-2'-10
direct	4324 Dec 11 10:02	14°♈13'19		minimum elong	4330 Feb 08 07:49	18°♈41'04	1°02'10
	4325 Feb 05 01:05	0°♈			4330 Feb 23 03:10	0°♈	
	4325 Mar 31 21:54	0°♈			4330 Apr 02 15:37	0°♈	
	4325 May 20 11:49	0°♈		morning rise	4330 Apr 12 22:57	8°♈06'24	
	4325 Jul 08 03:44	0°♈		greatest brilliancy	4330 Apr 18 11:12	12°♈26'39	1.2m
	4325 Aug 25 11:03	0°♈			4330 May 10 18:46	0°♈	
evening set	4325 Sep 27 20:45	20°♈59'30			4330 Jun 18 09:49	0°♈	
	4325 Oct 12 01:07	0°♈			4330 Jul 28 10:09	0°♈	
max. Earth dist.	4325 Oct 28 01:55	10°♈16'32	2.65206 AU	asc. node	4330 Aug 02 14:52	3°♈47'14	
					4330 Sep 08 18:50	0°♈	
conjunction	4325 Nov 12 00:25	19°♈56'38	0°20'48		4330 Oct 24 21:35	0°♈	
minimum elong	4325 Nov 12 01:04	19°♈57'41	0°20'47		4330 Dec 18 10:18	0°♈	
	4325 Nov 27 09:08	0°♈		retrograde	4331 Feb 15 13:45	16°♈24'13	
desc. node	4325 Dec 20 13:55	15°♈24'53		opposition	4331 Mar 27 20:10	6°♈37'55	3°57'43
morning rise	4325 Dec 26 23:15	19°♈42'48		min. Earth dist.	4331 Mar 27 09:28	6°♈48'35	0.67746 AU
	4326 Jan 11 02:56	0°♈		greatest brilliancy	4331 Mar 27 17:44	6°♈40'20	-1.2m
	4326 Feb 23 04:46	0°♈			4331 Apr 15 10:30	30°♈♈	
	4326 Apr 05 18:50	0°♈		direct	4331 May 07 12:36	26°♈53'01	
	4326 May 16 06:08	0°♈			4331 May 31 12:59	0°♈	
	4326 Jun 25 07:53	0°♈			4331 Aug 10 03:41	0°♈	
	4326 Aug 05 07:26	0°♈		desc. node	4331 Aug 12 10:07	1°♈14'10	
	4326 Sep 19 04:08	0°♈			4331 Sep 29 23:13	0°♈	
asc. node	4326 Oct 28 17:03	20°♈37'51			4331 Nov 14 04:46	0°♈	
retrograde	4326 Dec 03 20:12	28°♈44'19			4331 Dec 25 23:43	0°♈	
min. Earth dist.	4327 Jan 03 03:51	22°♈24'05	0.51924 AU		4332 Feb 03 12:08	0°♈	
greatest brilliancy	4327 Jan 09 10:01	20°♈02'40	-2.0m	evening set	4332 Feb 10 20:14	5°♈42'10	
opposition	4327 Jan 10 20:40	19°♈29'52	3°32'51		4332 Mar 12 18:03	0°♈	
direct	4327 Feb 14 14:54	11°♈52'35					
	4327 Apr 19 00:51	0°♈		conjunction	4332 Apr 18 03:01	28°♈45'42	0°-40'-18
	4327 Jun 15 08:38	0°♈		minimum elong	4332 Apr 18 06:22	28°♈52'19	0°40'17
	4327 Aug 05 18:16	0°♈			4332 Apr 19 16:45	0°♈	
	4327 Sep 23 13:36	0°♈			4332 May 28 06:07	0°♈	
evening set	4327 Nov 04 02:20	26°♈41'46		max. Earth dist.	4332 Jun 03 20:56	5°♈03'24	2.38581 AU
desc. node	4327 Nov 07 12:32	28°♈57'03		asc. node	4332 Jun 19 14:34	16°♈56'39	
	4327 Nov 09 02:40	0°♈		morning rise	4332 Jun 27 16:14	22°♈57'33	
max. Earth dist.	4327 Nov 23 13:18	9°♈37'07	2.57347 AU		4332 Jul 07 05:14	0°♈	
					4332 Aug 18 05:51	0°♈	
conjunction	4327 Dec 21 09:12	28°♈36'35	0°-24'-19		4332 Oct 01 21:12	0°♈	
minimum elong	4327 Dec 21 08:17	28°♈35'00	0°24'19		4332 Nov 19 00:46	0°♈	
	4327 Dec 23 09:16	0°♈			4333 Jan 13 07:51	0°♈	
	4328 Feb 03 12:28	0°♈		retrograde	4333 Mar 21 14:40	19°♈28'54	
morning rise	4328 Feb 09 12:43	4°♈23'33		opposition	4333 Apr 29 23:24	10°♈19'21	2°07'03
	4328 Mar 14 21:14	0°♈		greatest brilliancy	4333 Apr 30 08:08	10°♈10'46	-1.3m
	4328 Apr 23 00:49	0°♈		min. Earth dist.	4333 May 03 08:31	8°♈59'50	0.66002 AU
	4328 May 31 16:58	0°♈		direct	4333 Jun 10 11:14	0°♈16'49	

desc. node	4333 Jun 29 08:56	2°♄19'10		conjunction	4338 Sep 23 17:36	1°♂53'50	1°02'38
	4333 Sep 03 22:39	0°♂		minimum elong	4338 Sep 23 18:24	1°♂55'08	1°02'38
	4333 Oct 22 15:35	0°♂		max. Earth dist.	4338 Sep 27 06:27	4°♂08'57	2.67366 AU
	4333 Dec 04 10:16	0°♂			4338 Nov 06 22:23	0°♄	
	4334 Jan 13 05:10	0°♂		morning rise	4338 Nov 07 09:35	0°♄17'48	
	4334 Feb 20 13:06	0°♂			4338 Dec 24 00:03	0°♂	
	4334 Mar 30 14:33	0°♂			4339 Feb 08 17:52	0°♂	
evening set	4334 Apr 23 06:18	18°♂24'37		desc. node	4339 Feb 19 06:17	6°♂46'26	
asc. node	4334 May 07 12:54	29°♂21'23			4339 Mar 27 07:52	0°♂	
	4334 May 08 09:11	0°♄			4339 May 13 10:51	0°♂	
	4334 Jun 17 15:25	0°♂			4339 Jul 02 17:10	0°♂	
				retrograde	4339 Sep 11 18:07	24°♂28'10	
conjunction	4334 Jun 26 16:56	6°♂33'53	0°31'49	min. Earth dist.	4339 Oct 10 15:39	19°♂43'26	0.37045 AU
minimum elong	4334 Jun 26 14:56	6°♂30'17	0°31'48	opposition	4339 Oct 12 01:21	19°♂20'55	-5°-7'-21
	4334 Jul 29 21:20	0°♄		greatest brilliancy	4339 Oct 11 22:19	19°♂22'57	-2.9m
max. Earth dist.	4334 Aug 04 23:56	4°♄12'48	2.52088 AU	direct	4339 Nov 10 13:01	14°♂27'39	
morning rise	4334 Aug 22 21:41	16°♄23'54		asc. node	4339 Dec 28 09:39	27°♂14'07	
	4334 Sep 12 07:50	0°♄			4340 Jan 03 04:45	0°♂	
	4334 Oct 29 00:03	0°♂			4340 Feb 24 20:27	0°♄	
	4334 Dec 17 07:04	0°♄			4340 Apr 12 08:03	0°♂	
	4335 Feb 09 16:20	0°♂			4340 May 29 08:07	0°♄	
retrograde	4335 May 01 04:17	25°♂39'11			4340 Jul 15 18:07	0°♄	
desc. node	4335 May 17 07:07	24°♂00'26			4340 Sep 01 10:28	0°♂	
opposition	4335 Jun 07 07:47	17°♂32'55	0°-51'-58	evening set	4340 Sep 13 16:44	7°♂43'53	
greatest brilliancy	4335 Jun 07 15:31	17°♂25'41	-1.7m		4340 Oct 18 19:05	0°♄	
min. Earth dist.	4335 Jun 14 06:10	14°♂57'27	0.57835 AU	max. Earth dist.	4340 Oct 19 01:58	0°♄11'00	2.66886 AU
direct	4335 Jul 17 19:05	7°♂53'19					
	4335 Sep 23 09:24	0°♂		conjunction	4340 Oct 28 20:58	6°♄26'57	0°35'42
	4335 Nov 10 07:28	0°♂		minimum elong	4340 Oct 28 21:55	6°♄28'29	0°35'42
	4335 Dec 21 18:23	0°♂			4340 Dec 04 05:22	0°♂	
	4336 Jan 29 22:20	0°♂		morning rise	4340 Dec 12 02:17	5°♂10'06	
	4336 Mar 08 15:09	0°♂		desc. node	4341 Jan 06 04:44	21°♂49'58	
asc. node	4336 Mar 24 11:57	12°♂10'43			4341 Jan 18 08:12	0°♂	
	4336 Apr 17 01:19	0°♄			4341 Mar 03 01:04	0°♂	
	4336 May 27 23:37	0°♂			4341 Apr 14 10:53	0°♂	
evening set	4336 Jun 22 17:02	18°♂10'35			4341 May 25 21:46	0°♂	
	4336 Jul 09 20:05	0°♄			4341 Jul 06 05:36	0°♂	
					4341 Aug 18 11:16	0°♄	
conjunction	4336 Aug 15 00:28	24°♄19'41	1°05'47		4341 Oct 11 10:13	0°♂	
minimum elong	4336 Aug 14 23:43	24°♄18'27	1°05'46	asc. node	4341 Nov 14 09:24	7°♂42'19	
	4336 Aug 23 14:55	0°♄		retrograde	4341 Nov 15 02:03	7°♂42'32	
max. Earth dist.	4336 Sep 03 00:32	6°♄48'21	2.62356 AU	min. Earth dist.	4341 Dec 13 03:25	2°♂15'23	0.46545 AU
morning rise	4336 Oct 02 10:16	25°♄47'15			4341 Dec 19 13:01	30°♄	
	4336 Oct 09 00:39	0°♂		greatest brilliancy	4341 Dec 20 10:38	29°♄40'42	-2.3m
	4336 Nov 25 15:48	0°♄		opposition	4341 Dec 21 11:15	29°♄18'48	2°06'33
	4337 Jan 13 12:00	0°♂		direct	4342 Jan 23 10:31	22°♄30'02	
	4337 Mar 05 15:13	0°♂			4342 Mar 01 12:31	0°♂	
desc. node	4337 Apr 03 06:37	15°♂30'32			4342 May 03 06:02	0°♄	
	4337 May 03 22:35	0°♂			4342 Jun 24 12:04	0°♄	
retrograde	4337 Jun 24 11:07	12°♂39'11			4342 Aug 13 08:01	0°♂	
opposition	4337 Jul 27 11:41	6°♂23'20	-5°-5'-36		4342 Sep 30 13:01	0°♄	
greatest brilliancy	4337 Jul 29 12:03	5°♂44'13	-2.3m	evening set	4342 Oct 20 07:49	12°♄38'12	
min. Earth dist.	4337 Aug 04 19:49	3°♂42'22	0.44905 AU	max. Earth dist.	4342 Nov 12 15:05	27°♄48'30	2.61027 AU
	4337 Aug 19 05:09	30°♄			4342 Nov 15 22:51	0°♂	
direct	4337 Sep 01 13:27	28°♂45'58		desc. node	4342 Nov 24 03:11	5°♂25'28	
	4337 Sep 14 23:25	0°♂					
	4337 Nov 19 10:57	0°♂		conjunction	4342 Dec 05 07:53	12°♂55'10	0°-6'-16
	4338 Jan 02 08:48	0°♂		minimum elong	4342 Dec 05 07:39	12°♂54'46	0°06'17
asc. node	4338 Feb 09 11:10	27°♂42'41		behind sun begin	4342 Dec 04 13:24	12°♂24'05	
	4338 Feb 12 14:10	0°♂		behind sun end	4342 Dec 06 01:54	13°♂25'29	
	4338 Mar 25 20:43	0°♄			4342 Dec 30 08:46	0°♂	
	4338 May 07 07:25	0°♂		morning rise	4343 Jan 21 16:40	15°♂37'01	
	4338 Jun 20 09:08	0°♄			4343 Feb 10 19:32	0°♂	
	4338 Aug 05 00:24	0°♄			4343 Mar 23 13:57	0°♂	
evening set	4338 Aug 07 09:26	1°♄32'21			4343 May 02 03:32	0°♂	
	4338 Sep 20 18:08	0°♂			4343 Jun 10 05:02	0°♂	
					4343 Jul 19 18:19	0°♄	

	4343 Aug 30 06:46	0°☿			4348 Oct 31 04:24	0°♄		
asc. node	4343 Oct 02 09:19	21°☿51'00			4348 Dec 12 10:20	0°♁		
	4343 Oct 15 23:18	0°♂			4349 Jan 21 01:15	0°♂		
retrograde	4343 Dec 29 05:32	26°♂30'07			4349 Feb 28 07:26	0°♂		
min. Earth dist.	4344 Jan 31 22:36	18°♂56'10	0.59212 AU	evening set	4349 Mar 25 15:52	20°♂03'04		
greatest brilliancy	4344 Feb 05 10:35	17°♂09'42	-1.6m	greatest brilliancy	4349 Apr 01 01:07	25°♂05'25	1.2m	
opposition	4344 Feb 06 17:30	16°♂39'10	4°33'45		4349 Apr 07 06:47	0°♂		
direct	4344 Mar 14 22:08	8°♂05'49			4349 May 15 22:08	0°♂		
	4344 May 26 13:54	0°♂		asc. node	4349 May 24 06:12	6°♂20'42		
	4344 Jul 21 23:48	0°♂						
	4344 Sep 10 09:26	0°♂		conjunction	4349 Jun 01 23:16	12°♂55'10	0°05'56	
desc. node	4344 Oct 11 01:47	19°♂20'32		minimum elong	4349 Jun 01 22:45	12°♂54'12	0°05'54	
	4344 Oct 27 10:55	0°♂		behind sun begin	4349 May 31 20:37	12°♂05'07		
evening set	4344 Nov 28 04:25	21°♂19'16		behind sun end	4349 Jun 03 00:53	13°♂43'14		
	4344 Dec 10 17:24	0°♂			4349 Jun 25 00:13	0°♂		
max. Earth dist.	4344 Dec 13 03:27	1°♂41'27	2.50283 AU	max. Earth dist.	4349 Jul 19 20:36	17°♂54'07	2.46851 AU	
				morning rise	4349 Aug 03 11:12	28°♂10'22		
conjunction	4345 Jan 18 00:01	27°♂22'41	0°-50'-44		4349 Aug 06 02:16	0°♂		
minimum elong	4345 Jan 17 22:21	27°♂19'38	0°50'44		4349 Sep 19 12:07	0°♂		
	4345 Jan 21 13:46	0°♂			4349 Nov 05 12:24	0°♂		
	4345 Mar 02 12:36	0°♂			4349 Dec 26 04:08	0°♂		
morning rise	4345 Mar 16 04:19	10°♂30'00			4350 Feb 24 23:56	0°♂		
	4345 Apr 10 06:03	0°♂		retrograde	4350 Apr 14 07:02	11°♂01'12		
	4345 May 18 13:08	0°♂		opposition	4350 May 22 11:50	2°♂26'01	0°26'42	
	4345 Jun 26 07:09	0°♂		greatest brilliancy	4350 May 22 15:21	2°♂22'39	-1.5m	
	4345 Aug 05 11:17	0°♂		min. Earth dist.	4350 May 28 02:45	0°♂16'49	0.61748 AU	
asc. node	4345 Aug 19 07:31	9°♂57'47			4350 May 28 20:33	30°♂		
	4345 Sep 17 05:48	0°♂		desc. node	4350 Jun 02 22:37	28°♂08'42		
	4345 Nov 03 20:10	0°♂		direct	4350 Jul 02 15:27	22°♂30'15		
	4346 Jan 08 16:47	0°♂			4350 Aug 08 18:55	0°♂		
retrograde	4346 Feb 02 06:24	3°♂30'28			4350 Oct 06 10:22	0°♂		
	4346 Feb 25 03:36	30°♂			4350 Nov 20 05:14	0°♂		
min. Earth dist.	4346 Mar 12 14:48	24°♂23'14	0.66614 AU		4350 Dec 30 17:18	0°♂		
opposition	4346 Mar 14 14:04	23°♂35'56	4°23'39		4351 Feb 07 10:05	0°♂		
greatest brilliancy	4346 Mar 14 03:55	23°♂46'05	-1.3m		4351 Mar 17 18:34	0°♂		
direct	4346 Apr 23 13:41	14°♂05'15		asc. node	4351 Apr 11 04:05	18°♂49'57		
	4346 Jun 22 18:40	0°♂			4351 Apr 25 20:40	0°♂		
	4346 Aug 19 18:54	0°♂		evening set	4351 Jun 02 02:55	27°♂35'06		
desc. node	4346 Aug 29 00:42	5°♂23'10			4351 Jun 05 11:00	0°♂		
	4346 Oct 07 21:33	0°♂			4351 Jul 18 00:03	0°♂		
	4346 Nov 21 16:07	0°♂						
	4347 Jan 02 09:20	0°♂		conjunction	4351 Jul 29 05:41	7°♂41'13	0°57'56	
evening set	4347 Jan 17 08:30	11°♂11'21		minimum elong	4351 Jul 29 04:07	7°♂38'34	0°57'55	
	4347 Feb 10 23:07	0°♂		max. Earth dist.	4351 Aug 24 14:04	25°♂22'42	2.58930 AU	
max. Earth dist.	4347 Feb 21 00:45	7°♂48'57	2.37683 AU		4351 Aug 31 13:54	0°♂		
				morning rise	4351 Sep 18 07:27	11°♂35'38		
conjunction	4347 Mar 20 16:59	29°♂32'44	0°-59'-54		4351 Oct 16 23:36	0°♂		
minimum elong	4347 Mar 20 19:15	29°♂37'11	0°59'54		4351 Dec 04 01:00	0°♂		
	4347 Mar 21 06:48	0°♂			4352 Jan 23 05:46	0°♂		
	4347 Apr 28 06:17	0°♂			4352 Mar 18 16:55	0°♂		
morning rise	4347 May 31 04:35	25°♂41'17		desc. node	4352 Apr 19 21:18	13°♂54'35		
	4347 Jun 05 19:09	0°♂		retrograde	4352 May 31 03:45	22°♂23'50		
asc. node	4347 Jul 07 06:16	23°♂45'27		opposition	4352 Jul 05 02:53	15°♂17'33	-3°-21'-29	
	4347 Jul 15 17:18	0°♂		greatest brilliancy	4352 Jul 06 13:03	14°♂47'38	-2.0m	
	4347 Aug 26 18:25	0°♂		min. Earth dist.	4352 Jul 13 13:27	12°♂21'16	0.50248 AU	
	4347 Oct 10 17:23	0°♂		direct	4352 Aug 12 12:04	6°♂34'25		
	4347 Nov 29 04:40	0°♂			4352 Oct 18 20:38	0°♂		
retrograde	4348 Jan 31 15:31	0°♂			4352 Dec 03 17:49	0°♂		
	4348 Mar 07 15:58	6°♂43'14			4353 Jan 13 14:51	0°♂		
	4348 Apr 09 12:12	30°♂			4353 Feb 22 08:55	0°♂		
opposition	4348 Apr 16 12:35	27°♂16'42	2°57'12	asc. node	4353 Feb 26 02:46	2°♂49'10		
greatest brilliancy	4348 Apr 16 18:56	27°♂10'25	-1.2m		4353 Apr 03 15:15	0°♂		
min. Earth dist.	4348 Apr 18 09:59	26°♂31'48	0.67464 AU		4353 May 15 07:19	0°♂		
direct	4348 May 27 21:08	17°♂17'50			4353 Jun 27 18:34	0°♂		
desc. node	4348 Jul 15 23:31	28°♂49'16		evening set	4353 Jul 21 22:13	16°♂09'15		
	4348 Jul 18 19:49	0°♂			4353 Aug 11 23:50	0°♂		
	4348 Sep 14 09:31	0°♂						

conjunction	4353 Sep 09 01:07	18° \cap 09'44	1°07'15			4358 Jul 29 12:21	0° Π	
minimum elong	4353 Sep 09 01:29	18° \cap 10'19	1°07'15			4358 Sep 10 13:41	0° \ominus	
max. Earth dist.	4353 Sep 18 03:15	23° \cap 59'42	2.66063 AU	asc. node		4358 Oct 19 00:46	22° \ominus 51'56	
	4353 Sep 27 12:41	0° $\underline{\text{A}}$				4358 Nov 03 00:58	0° Ω	
morning rise	4353 Oct 24 17:37	17° $\underline{\text{A}}$ 18'11		retrograde		4358 Dec 13 12:21	9° Ω 46'07	
	4353 Nov 13 18:58	0° \cap		min. Earth dist.		4359 Jan 14 02:00	2° Ω 58'18	0.54721 AU
	4353 Dec 31 08:38	0° A		greatest brilliancy		4359 Jan 19 17:28	0° Ω 47'53	-1.8m
	4354 Feb 17 06:11	0° Z		opposition		4359 Jan 21 04:48	0° Ω 13'46	4°04'03
desc. node	4354 Mar 07 20:24	11° Z 30'43				4359 Jan 21 19:09	30° \cap \ominus	
	4354 Apr 07 06:01	0° \approx		direct		4359 Feb 25 21:30	22° \ominus 14'07	
	4354 May 30 06:49	0° H				4359 Apr 05 15:06	0° Ω	
retrograde	4354 Aug 09 23:37	23° H 11'26				4359 Jun 08 15:35	0° \cap	
opposition	4354 Sep 09 06:28	18° H 08'47	-6°-36'-30			4359 Jul 31 09:41	0° $\underline{\text{A}}$	
greatest brilliancy	4354 Sep 10 14:03	17° H 47'12	-2.8m			4359 Sep 18 16:56	0° \cap	
min. Earth dist.	4354 Sep 13 09:06	17° H 01'37	0.38246 AU	desc. node		4359 Oct 28 16:26	25° \cap 33'57	
direct	4354 Oct 10 10:33	12° H 39'19				4359 Nov 04 10:25	0° A	
	4354 Dec 05 06:24	0° Υ		evening set		4359 Nov 12 22:05	5° A 37'35	
asc. node	4355 Jan 14 03:04	23° Υ 45'35		max. Earth dist.		4359 Nov 30 12:11	17° A 28'02	2.55004 AU
	4355 Jan 23 17:47	0° B				4359 Dec 18 17:16	0° Z	
	4355 Mar 09 12:40	0° Π						
	4355 Apr 23 02:05	0° \ominus		conjunction		4359 Dec 31 05:15	8° Z 45'42	0°-34'-36
	4355 Jun 07 13:08	0° Ω		minimum elong		4359 Dec 31 03:58	8° Z 43'26	0°34'37
	4355 Jul 24 02:01	0° \cap				4360 Jan 29 18:32	0° \approx	
evening set	4355 Aug 31 07:29	24° \cap 18'17		morning rise		4360 Feb 21 10:30	16° \approx 45'36	
	4355 Sep 09 07:11	0° $\underline{\text{A}}$				4360 Mar 10 00:00	0° H	
max. Earth dist.	4355 Oct 11 08:16	20° $\underline{\text{A}}$ 19'50	2.67720 AU			4360 Apr 18 00:04	0° Υ	
						4360 May 26 12:35	0° B	
conjunction	4355 Oct 15 23:16	23° $\underline{\text{A}}$ 16'22	0°48'19			4360 Jul 04 11:11	0° Π	
minimum elong	4355 Oct 16 00:20	23° $\underline{\text{A}}$ 18'04	0°48'20			4360 Aug 13 22:01	0° \ominus	
	4355 Oct 26 12:31	0° \cap		asc. node		4360 Sep 05 00:25	15° \ominus 35'51	
morning rise	4355 Nov 28 23:52	21° \cap 29'26				4360 Sep 26 10:27	0° Ω	
	4355 Dec 12 02:57	0° A				4360 Nov 16 01:27	0° \cap	
desc. node	4356 Jan 23 19:18	28° A 03'24		retrograde		4361 Jan 19 17:35	20° \cap 05'03	
	4356 Jan 26 17:26	0° Z		min. Earth dist.		4361 Feb 25 10:13	11° \cap 30'29	0.64488 AU
	4356 Mar 11 06:06	0° \approx		opposition		4361 Feb 28 22:09	10° \cap 06'35	4°38'50
	4356 Apr 23 20:06	0° H		greatest brilliancy		4361 Feb 28 03:31	10° \cap 25'13	-1.4m
	4356 Jun 05 22:01	0° Υ		direct		4361 Apr 08 23:58	0° \cap 54'10	
	4356 Jul 19 21:02	0° B				4361 Jul 05 16:36	0° $\underline{\text{A}}$	
	4356 Sep 08 16:09	0° Π				4361 Aug 28 08:36	0° \cap	
retrograde	4356 Oct 24 02:42	12° Π 31'02		desc. node		4361 Sep 14 15:54	10° \cap 30'00	
min. Earth dist.	4356 Nov 19 13:22	7° Π 50'06	0.41458 AU			4361 Oct 15 10:16	0° A	
opposition	4356 Nov 27 04:01	5° Π 25'10	0°-15'-26			4361 Nov 28 22:11	0° Z	
greatest brilliancy	4356 Dec 05 01:31	3° Π 01'10	-2.7m	evening set		4361 Dec 26 23:30	19° Z 58'42	
asc. node	4356 Dec 01 02:32	4° Π 11'05				4362 Jan 09 15:45	0° \approx	
	4356 Dec 20 00:14	30° \cap B		max. Earth dist.		4362 Jan 12 08:39	2° \approx 00'11	2.42228 AU
direct	4356 Dec 28 05:12	29° B 33'04				4362 Feb 18 08:16	0° H	
	4357 Jan 05 12:57	0° Π						
	4357 Mar 23 03:24	0° \ominus		conjunction		4362 Feb 21 23:38	2° H 48'31	-1°-4'-58
	4357 May 14 05:08	0° Ω		minimum elong		4362 Feb 21 23:19	2° H 47'56	1°04'59
	4357 Jul 02 20:26	0° \cap				4362 Mar 28 19:04	0° Υ	
	4357 Aug 20 14:39	0° $\underline{\text{A}}$		morning rise		4362 Apr 30 05:02	25° Υ 33'13	
evening set	4357 Oct 05 23:45	29° $\underline{\text{A}}$ 06'25				4362 May 05 20:41	0° B	
	4357 Oct 07 09:27	0° \cap				4362 Jun 13 10:22	0° Π	
max. Earth dist.	4357 Nov 02 14:33	16° \cap 49'46	2.63945 AU	asc. node		4362 Jul 23 22:59	0° \ominus 25'37	
						4362 Jul 23 09:00	0° \ominus	
conjunction	4357 Nov 20 07:19	28° \cap 22'56	0°11'14			4362 Sep 03 13:04	0° Ω	
minimum elong	4357 Nov 20 07:41	28° \cap 23'32	0°11'14			4362 Oct 19 01:34	0° \cap	
behind sun begin	4357 Nov 19 17:53	28° \cap 00'51				4362 Dec 09 22:19	0° $\underline{\text{A}}$	
behind sun end	4357 Nov 20 21:29	28° \cap 46'13		retrograde		4363 Feb 23 03:56	24° $\underline{\text{A}}$ 06'50	
	4357 Nov 22 18:18	0° A		opposition		4363 Apr 04 08:28	14° $\underline{\text{A}}$ 26'36	3°38'02
desc. node	4357 Dec 10 17:50	11° A 56'27		greatest brilliancy		4363 Apr 04 09:42	14° $\underline{\text{A}}$ 25'22	-1.2m
morning rise	4358 Jan 04 21:38	28° A 58'39		min. Earth dist.		4363 Apr 04 17:36	14° $\underline{\text{A}}$ 17'30	0.67936 AU
	4358 Jan 06 09:26	0° Z		direct		4363 May 15 08:38	4° $\underline{\text{A}}$ 35'38	
	4358 Feb 18 05:55	0° \approx		desc. node		4363 Aug 02 15:09	29° $\underline{\text{A}}$ 50'23	
	4358 Mar 31 12:24	0° H				4363 Aug 02 22:40	0° \cap	
	4358 May 10 14:54	0° Υ				4363 Sep 24 11:21	0° A	
	4358 Jun 19 05:45	0° B				4363 Nov 09 04:34	0° Z	

	4363 Dec 21 03:21	0°♊		morning rise	4368 Oct 10 17:10	4°♊03'05	
	4364 Jan 29 16:30	0°♋			4368 Nov 20 19:23	0°♌	
evening set	4364 Feb 26 00:41	21°♋23'33			4369 Jan 08 02:11	0°♍	
	4364 Mar 07 22:14	0°♎			4369 Feb 26 17:44	0°♎	
	4364 Apr 14 20:34	0°♏		desc. node	4369 Mar 24 11:16	14°♎52'25	
					4369 Apr 21 08:40	0°♏	
conjunction	4364 May 04 22:47	15°♏44'18	0°-24'-12	retrograde	4369 Jul 10 00:58	26°♏12'38	
minimum elong	4364 May 05 01:07	15°♏48'50	0°24'12	opposition	4369 Aug 10 22:00	20°♏26'24	-5°-57'-20
	4364 May 23 09:44	0°♐		greatest brilliancy	4369 Aug 12 23:53	19°♏48'09	-2.5m
asc. node	4364 Jun 09 21:31	13°♐17'25		min. Earth dist.	4369 Aug 18 10:09	18°♏09'08	0.42121 AU
max. Earth dist.	4364 Jun 26 04:31	25°♐26'48	2.41372 AU	direct	4369 Sep 14 08:34	13°♏34'29	
	4364 Jul 02 08:57	0°♑			4369 Nov 06 17:54	0°♋	
morning rise	4364 Jul 12 01:58	7°♑04'50			4369 Dec 25 02:13	0°♌	
	4364 Aug 13 08:48	0°♒		asc. node	4370 Jan 30 19:03	25°♌42'33	
	4364 Sep 26 20:26	0°♓			4370 Feb 05 19:31	0°♍	
	4364 Nov 13 10:24	0°♈			4370 Mar 19 21:52	0°♎	
	4365 Jan 05 09:14	0°♉			4370 May 01 21:54	0°♏	
retrograde	4365 Mar 29 21:49	27°♉25'57			4370 Jun 15 08:51	0°♐	
opposition	4365 May 07 22:25	18°♉27'16	1°33'07		4370 Jul 31 06:18	0°♑	
greatest brilliancy	4365 May 08 06:41	18°♉19'13	-1.4m	evening set	4370 Aug 16 07:29	10°♑19'27	
min. Earth dist.	4365 May 12 02:50	16°♉49'34	0.64774 AU		4370 Sep 16 03:03	0°♒	
direct	4365 Jun 18 09:43	8°♉25'18					
desc. node	4365 Jun 19 13:22	8°♉25'47		conjunction	4370 Oct 01 22:00	10°♒02'29	0°58'16
	4365 Aug 26 22:36	0°♊		minimum elong	4370 Oct 01 22:58	10°♒04'02	0°58'16
	4365 Oct 16 18:03	0°♋		max. Earth dist.	4370 Oct 02 11:02	10°♒23'13	2.67719 AU
	4365 Nov 29 02:45	0°♌			4370 Nov 02 07:04	0°♍	
	4366 Jan 08 02:54	0°♍		morning rise	4370 Nov 15 05:36	8°♍15'03	
	4366 Feb 15 13:27	0°♎			4370 Dec 19 03:58	0°♍	
	4366 Mar 25 16:36	0°♏			4371 Feb 03 10:31	0°♎	
asc. node	4366 Apr 27 21:35	25°♏42'33		desc. node	4371 Feb 09 10:10	3°♎54'35	
	4366 May 03 12:42	0°♐			4371 Mar 21 03:31	0°♏	
evening set	4366 May 08 10:59	3°♐44'10			4371 May 05 14:50	0°♋	
	4366 Jun 12 20:31	0°♑			4371 Jun 20 22:56	0°♌	
					4371 Aug 12 14:45	0°♍	
conjunction	4366 Jul 09 06:26	18°♑54'36	0°43'27	retrograde	4371 Sep 28 15:16	12°♍48'39	
minimum elong	4366 Jul 09 04:19	18°♑50'53	0°43'26	min. Earth dist.	4371 Oct 25 17:36	8°♍22'15	0.37839 AU
	4366 Jul 25 03:34	0°♒		greatest brilliancy	4371 Oct 29 12:02	7°♍18'51	-2.9m
max. Earth dist.	4366 Aug 12 19:21	12°♒46'21	2.54712 AU	opposition	4371 Oct 30 02:01	7°♍09'02	-3°-26'-5
morning rise	4366 Sep 01 23:48	26°♒18'18		direct	4371 Nov 28 14:27	2°♍06'00	
	4366 Sep 07 13:55	0°♓		asc. node	4371 Dec 18 18:58	4°♍39'32	
	4366 Oct 24 02:04	0°♈			4372 Feb 14 19:05	0°♎	
	4366 Dec 11 19:18	0°♉			4372 Apr 05 09:26	0°♏	
	4367 Feb 02 03:50	0°♊			4372 May 23 15:29	0°♐	
	4367 Apr 10 10:34	0°♋			4372 Jul 10 16:37	0°♑	
desc. node	4367 May 07 11:58	4°♋59'00			4372 Aug 27 16:43	0°♒	
retrograde	4367 May 11 15:05	5°♋05'11		evening set	4372 Sep 21 19:37	15°♒48'13	
	4367 Jun 09 10:42	30°♌♊			4372 Oct 14 04:32	0°♓	
opposition	4367 Jun 17 02:32	27°♊17'55	-1°-43'-11	max. Earth dist.	4372 Oct 24 07:18	6°♓28'10	2.66054 AU
greatest brilliancy	4367 Jun 17 19:01	27°♊02'46	-1.8m				
min. Earth dist.	4367 Jun 24 16:42	24°♊31'07	0.55311 AU	conjunction	4372 Nov 05 22:13	14°♓35'33	0°27'15
direct	4367 Jul 27 00:15	17°♊53'21		minimum elong	4372 Nov 05 23:00	14°♓36'49	0°27'15
	4367 Sep 12 00:01	0°♌			4372 Nov 29 14:08	0°♍	
	4367 Nov 03 05:50	0°♍		morning rise	4372 Dec 20 11:40	13°♍49'29	
	4367 Dec 15 16:51	0°♎		desc. node	4372 Dec 27 09:07	18°♍25'56	
	4368 Jan 24 07:32	0°♏			4373 Jan 13 12:25	0°♎	
	4368 Mar 03 07:12	0°♐			4373 Feb 25 21:25	0°♏	
asc. node	4368 Mar 14 20:42	8°♐50'12			4373 Apr 08 20:10	0°♋	
	4368 Apr 11 22:39	0°♑			4373 May 19 17:20	0°♌	
	4368 May 23 01:39	0°♒			4373 Jun 29 06:12	0°♍	
evening set	4368 Jul 03 20:02	29°♒09'13			4373 Aug 09 22:53	0°♎	
	4368 Jul 05 01:47	0°♓			4373 Sep 25 22:27	0°♏	
	4368 Aug 18 23:01	0°♈		asc. node	4373 Nov 04 18:14	17°♏25'19	
				retrograde	4373 Nov 26 00:11	20°♏29'44	
conjunction	4368 Aug 24 10:39	3°♈35'31	1°07'43	min. Earth dist.	4373 Dec 25 07:39	14°♏33'13	0.49541 AU
minimum elong	4368 Aug 24 10:22	3°♈35'03	1°07'42	greatest brilliancy	4374 Jan 01 01:15	12°♏04'38	-2.1m
max. Earth dist.	4368 Sep 08 18:43	13°♈33'54	2.63888 AU	opposition	4374 Jan 02 09:37	11°♏34'44	3°02'05
	4368 Oct 04 08:36	0°♉		direct	4374 Feb 05 08:38	4°♏18'04	

	4374 Apr 24 20:40	0°♈		conjunction	4379 Apr 06 00:40	16°♊15'33	0°-50'-29
	4374 Jun 18 13:55	0°♍		minimum elong	4379 Apr 06 03:58	16°♊22'05	0°50'28
	4374 Aug 08 06:04	0°♊			4379 Apr 23 10:20	0°♋	
	4374 Sep 25 19:33	0°♌		max. Earth dist.	4379 Apr 27 21:38	3°♋31'05	2.37002 AU
evening set	4374 Oct 28 16:10	21°♌02'39			4379 May 31 22:42	0°♍	
	4374 Nov 11 08:14	0°♎		morning rise	4379 Jun 16 16:25	11°♍59'22	
desc. node	4374 Nov 14 08:03	1°♎58'40		asc. node	4379 Jun 27 15:34	20°♍13'39	
max. Earth dist.	4374 Nov 18 17:08	4°♎53'01	2.59087 AU		4379 Jul 10 20:10	0°♏	
					4379 Aug 21 19:17	0°♈	
conjunction	4374 Dec 14 07:17	22°♎08'27	0°-16'-42		4379 Oct 05 11:27	0°♍	
minimum elong	4374 Dec 14 06:40	22°♎07'24	0°16'41		4379 Nov 22 23:58	0°♊	
	4374 Dec 25 17:17	0°♋			4380 Jan 19 10:35	0°♌	
morning rise	4375 Feb 01 01:41	26°♋24'37		retrograde	4380 Mar 15 13:19	14°♌28'49	
	4375 Feb 06 00:48	0°♍		opposition	4380 Apr 24 04:27	5°♌11'03	2°28'55
	4375 Mar 18 14:18	0°♎		greatest brilliancy	4380 Apr 24 12:25	5°♌03'13	-1.3m
	4375 Apr 26 22:26	0°♏		min. Earth dist.	4380 Apr 26 21:31	4°♌07'03	0.66788 AU
	4375 Jun 04 18:21	0°♋			4380 May 08 00:40	30°♌♊	
	4375 Jul 14 00:29	0°♍		direct	4380 Jun 04 16:15	25°♊09'35	
	4375 Aug 23 23:55	0°♏			4380 Jul 04 17:34	0°♌	
asc. node	4375 Sep 22 16:01	20°♏14'33		desc. node	4380 Jul 06 04:12	0°♌26'05	
	4375 Oct 07 23:53	0°♈			4380 Sep 07 20:50	0°♎	
	4375 Dec 06 14:14	0°♍			4380 Oct 25 17:47	0°♋	
retrograde	4376 Jan 06 15:34	5°♍44'46			4380 Dec 07 08:08	0°♍	
	4376 Feb 04 17:28	30°♌♊			4381 Jan 16 01:57	0°♎	
min. Earth dist.	4376 Feb 10 11:52	27°♌47'46	0.61372 AU	greatest brilliancy	4381 Jan 28 20:33	9°♎55'34	1.2m
greatest brilliancy	4376 Feb 14 08:50	26°♌15'31	-1.5m		4381 Feb 23 09:20	0°♏	
opposition	4376 Feb 15 11:46	25°♌48'46	4°40'43		4381 Apr 02 09:34	0°♋	
direct	4376 Mar 24 10:26	16°♌59'45		evening set	4381 Apr 10 22:15	6°♋41'06	
	4376 May 16 11:17	0°♍			4381 May 11 01:52	0°♍	
	4376 Jul 15 22:03	0°♊		asc. node	4381 May 14 13:53	2°♍40'08	
	4376 Sep 05 06:46	0°♌					
desc. node	4376 Oct 01 06:45	16°♌11'37		conjunction	4381 Jun 16 08:42	27°♍10'55	0°21'32
	4376 Oct 22 16:30	0°♎		minimum elong	4381 Jun 16 07:05	27°♍07'58	0°21'29
	4376 Dec 06 01:19	0°♋			4381 Jun 20 05:04	0°♏	
evening set	4376 Dec 08 00:37	1°♋22'34		max. Earth dist.	4381 Jul 29 13:52	28°♏05'16	2.49808 AU
max. Earth dist.	4376 Dec 22 07:38	11°♋28'04	2.47494 AU		4381 Aug 01 07:51	0°♈	
	4377 Jan 16 21:18	0°♍		morning rise	4381 Aug 14 19:27	9°♈17'10	
					4381 Sep 14 16:23	0°♍	
conjunction	4377 Jan 29 16:14	9°♍29'19	0°-58'-5		4381 Oct 31 10:07	0°♊	
minimum elong	4377 Jan 29 14:41	9°♍26'24	0°58'06		4381 Dec 20 03:39	0°♌	
	4377 Feb 25 18:10	0°♎			4382 Feb 14 10:17	0°♎	
morning rise	4377 Mar 31 06:38	26°♎00'03		retrograde	4382 Apr 23 15:43	19°♎41'20	
	4377 Apr 05 09:11	0°♏		desc. node	4382 May 24 02:27	14°♎00'12	
	4377 May 13 13:52	0°♋		opposition	4382 May 31 08:04	11°♎21'11	0°-17'-23
greatest brilliancy	4377 Jun 03 14:40	16°♎25'02	1.2m	greatest brilliancy	4382 May 31 09:14	11°♎20'05	-1.6m
	4377 Jun 21 05:17	0°♍		min. Earth dist.	4382 Jun 06 17:01	8°♎56'36	0.59703 AU
	4377 Jul 31 05:45	0°♏		direct	4382 Jul 11 04:37	1°♎32'56	
asc. node	4377 Aug 09 15:45	6°♏50'13			4382 Sep 28 18:41	0°♋	
	4377 Sep 11 16:08	0°♈			4382 Nov 14 03:57	0°♍	
	4377 Oct 28 04:38	0°♍			4382 Dec 25 04:35	0°♎	
	4377 Dec 24 07:31	0°♊			4383 Feb 02 03:18	0°♏	
retrograde	4378 Feb 09 21:33	11°♊26'20			4383 Mar 12 15:47	0°♋	
min. Earth dist.	4378 Mar 21 02:31	2°♊02'56	0.67376 AU	asc. node	4383 Apr 01 12:44	15°♋18'43	
opposition	4378 Mar 22 05:43	1°♊35'47	4°09'42		4383 Apr 20 21:09	0°♍	
greatest brilliancy	4378 Mar 22 00:00	1°♊41'29	-1.2m		4383 May 31 14:31	0°♏	
	4378 Mar 26 06:20	30°♌♍		evening set	4383 Jun 14 16:21	10°♏03'31	
direct	4378 May 01 15:53	21°♍56'41			4383 Jul 13 06:15	0°♈	
	4378 Jun 11 02:57	0°♊					
	4378 Aug 13 14:08	0°♌		conjunction	4383 Aug 08 13:55	17°♈50'29	1°03'12
desc. node	4378 Aug 19 05:31	3°♌10'22		minimum elong	4383 Aug 08 12:50	17°♈48'39	1°03'12
	4378 Oct 02 16:42	0°♎			4383 Aug 26 21:32	0°♍	
	4378 Nov 16 18:50	0°♋		max. Earth dist.	4383 Aug 30 20:04	2°♍35'21	2.60922 AU
	4378 Dec 28 14:26	0°♍		morning rise	4383 Sep 27 01:53	20°♍17'11	
evening set	4379 Jan 30 17:37	25°♍01'41			4383 Oct 12 06:04	0°♊	
	4379 Feb 06 04:16	0°♎			4383 Nov 29 00:31	0°♌	
	4379 Mar 16 11:23	0°♏			4384 Jan 17 08:19	0°♎	
					4384 Mar 09 21:45	0°♋	

desc. node	4384 Apr 10 01:42	15° $\overline{3}$ 43'40		4389 Aug 15 16:49	0° $\underline{5}$	
	4384 May 17 13:50	0° \approx		4389 Oct 02 17:46	0° \mathbb{M}	
retrograde	4384 Jun 13 09:09	3° \approx 54'45		evening set	4389 Oct 14 03:37	7° \mathbb{M} 16'12
	4384 Jul 08 16:14	30° \mathbb{R} $\overline{3}$		max. Earth dist.	4389 Nov 08 06:43	23° \mathbb{M} 30'51 2.62436 AU
opposition	4384 Jul 17 07:25	27° $\overline{3}$ 15'26 -4°-21'-9			4389 Nov 18 03:57	0° $\overline{7}$
greatest brilliancy	4384 Jul 19 02:56	26° $\overline{3}$ 38'51 -2.2m				
min. Earth dist.	4384 Jul 25 20:24	24° $\overline{3}$ 23'51 0.47290 AU	conjunction	4389 Nov 28 18:27	7° $\overline{7}$ 01'26 0°01'14	
direct	4384 Aug 23 13:04	19° $\overline{3}$ 05'26	minimum elong	4389 Nov 28 18:31	7° $\overline{7}$ 01'33 0°01'14	
	4384 Oct 05 07:28	0° \approx	behind sun begin	4389 Nov 27 23:22	6° $\overline{7}$ 29'42	
	4384 Nov 25 16:38	0° \mathbb{H}	behind sun end	4389 Nov 29 13:40	7° $\overline{7}$ 33'25	
	4385 Jan 06 23:01	0° \mathbb{Y}	desc. node	4389 Nov 30 22:28	8° $\overline{7}$ 28'07	
asc. node	4385 Feb 16 12:11	0° \mathbb{B} 03'59		4390 Jan 01 17:06	0° $\overline{3}$	
	4385 Feb 16 10:02	0° \mathbb{B}	morning rise	4390 Jan 14 05:42	8° $\overline{3}$ 40'30	
	4385 Mar 29 03:41	0° \mathbb{I}		4390 Feb 13 09:04	0° \approx	
	4385 May 10 04:10	0° $\overline{5}$		4390 Mar 26 09:25	0° \mathbb{H}	
	4385 Jun 22 21:49	0° \mathbb{Q}		4390 May 05 04:47	0° \mathbb{Y}	
evening set	4385 Jul 31 11:09	25° \mathbb{Q} 32'22		4390 Jun 13 11:43	0° \mathbb{B}	
	4385 Aug 07 07:22	0° \mathbb{M}		4390 Jul 23 06:40	0° \mathbb{I}	
				4390 Sep 03 06:02	0° $\overline{5}$	
conjunction	4385 Sep 17 12:28	26° \mathbb{M} 33'00 1°05'00	asc. node	4390 Oct 09 09:51	23° $\overline{5}$ 06'22	
minimum elong	4385 Sep 17 13:08	26° \mathbb{M} 34'03 1°05'00		4390 Oct 21 15:13	0° \mathbb{Q}	
	4385 Sep 22 22:07	0° $\underline{5}$	retrograde	4390 Dec 22 15:38	20° \mathbb{Q} 01'13	
max. Earth dist.	4385 Sep 23 10:46	0° $\underline{5}$ 20'12 2.66886 AU	min. Earth dist.	4391 Jan 24 10:08	12° \mathbb{Q} 47'40 0.57297 AU	
morning rise	4385 Nov 01 14:04	25° $\underline{5}$ 13'10	greatest brilliancy	4391 Jan 29 10:49	10° \mathbb{Q} 49'49 -1.7m	
	4385 Nov 09 02:57	0° \mathbb{M}	opposition	4391 Jan 30 20:26	10° \mathbb{Q} 16'56 4°24'45	
	4385 Dec 26 09:29	0° $\overline{7}$	direct	4391 Mar 08 10:14	1° \mathbb{Q} 57'42	
	4386 Feb 11 14:24	0° $\overline{3}$		4391 Jun 01 04:04	0° \mathbb{M}	
desc. node	4386 Feb 26 01:37	9° $\overline{3}$ 10'42		4391 Jul 25 20:07	0° $\underline{5}$	
	4386 Mar 31 02:06	0° \approx		4391 Sep 13 18:49	0° \mathbb{M}	
	4386 May 19 01:58	0° \mathbb{H}	desc. node	4391 Oct 18 21:17	22° \mathbb{M} 15'26	
	4386 Jul 14 19:49	0° \mathbb{Y}		4391 Oct 30 17:58	0° $\overline{7}$	
retrograde	4386 Aug 28 15:46	10° \mathbb{Y} 54'36	evening set	4391 Nov 22 00:35	14° $\overline{7}$ 51'49	
opposition	4386 Sep 27 13:28	5° \mathbb{Y} 58'15 -6°-3'-33	max. Earth dist.	4391 Dec 07 22:36	25° $\overline{7}$ 44'45 2.52469 AU	
greatest brilliancy	4386 Sep 28 01:43	5° \mathbb{Y} 50'10 -2.9m		4391 Dec 14 01:49	0° $\overline{3}$	
min. Earth dist.	4386 Sep 28 18:08	5° \mathbb{Y} 39'19 0.37161 AU				
direct	4386 Oct 27 11:45	0° \mathbb{Y} 57'45	conjunction	4392 Jan 10 14:01	19° $\overline{3}$ 29'01 0°-44'-15	
asc. node	4387 Jan 04 10:33	24° \mathbb{Y} 59'50	minimum elong	4392 Jan 10 12:27	19° $\overline{3}$ 26'11 0°44'15	
	4387 Jan 13 03:00	0° \mathbb{B}		4392 Jan 25 01:27	0° \approx	
	4387 Mar 02 01:51	0° \mathbb{I}	morning rise	4392 Mar 05 08:23	0° \mathbb{H} 08'25	
	4387 Apr 17 00:05	0° $\overline{5}$		4392 Mar 05 03:58	0° \mathbb{H}	
	4387 Jun 02 05:19	0° \mathbb{Q}		4392 Apr 13 00:38	0° \mathbb{Y}	
	4387 Jul 19 04:38	0° \mathbb{M}		4392 May 21 10:02	0° \mathbb{B}	
	4387 Sep 04 15:25	0° $\underline{5}$		4392 Jun 29 05:17	0° \mathbb{I}	
evening set	4387 Sep 08 14:16	2° $\underline{5}$ 29'49		4392 Aug 08 10:37	0° $\overline{5}$	
max. Earth dist.	4387 Oct 16 12:08	26° $\underline{5}$ 31'53 2.67367 AU	asc. node	4392 Aug 26 08:34	12° $\overline{5}$ 48'47	
	4387 Oct 21 22:40	0° \mathbb{M}		4392 Sep 20 09:39	0° \mathbb{Q}	
				4392 Nov 07 20:12	0° \mathbb{M}	
conjunction	4387 Oct 23 22:02	1° \mathbb{M} 15'37 0°41'15	retrograde	4393 Jan 27 12:31	28° \mathbb{M} 20'29	
minimum elong	4387 Oct 23 23:03	1° \mathbb{M} 17'15 0°41'15	min. Earth dist.	4393 Mar 06 04:16	19° \mathbb{M} 27'23 0.65787 AU	
morning rise	4387 Dec 06 23:41	29° \mathbb{M} 41'19	opposition	4393 Mar 08 19:59	18° \mathbb{M} 23'42 4°31'31	
	4387 Dec 07 11:08	0° $\overline{7}$	greatest brilliancy	4393 Mar 08 06:08	18° \mathbb{M} 37'33 -1.3m	
desc. node	4388 Jan 13 23:55	24° $\overline{7}$ 45'59	direct	4393 Apr 17 11:02	9° \mathbb{M} 00'37	
	4388 Jan 21 19:33	0° $\overline{3}$		4393 Jun 27 18:16	0° $\underline{5}$	
	4388 Mar 05 21:21	0° \approx		4393 Aug 22 17:28	0° \mathbb{M}	
	4388 Apr 17 18:56	0° \mathbb{H}	desc. node	4393 Sep 04 20:11	7° \mathbb{M} 46'57	
	4388 May 29 20:49	0° \mathbb{Y}		4393 Oct 10 10:30	0° $\overline{7}$	
	4388 Jul 11 01:41	0° \mathbb{B}		4393 Nov 24 03:39	0° $\overline{3}$	
	4388 Aug 25 05:01	0° \mathbb{I}		4394 Jan 04 22:24	0° \approx	
retrograde	4388 Nov 06 00:29	27° \mathbb{I} 46'29	evening set	4394 Jan 07 16:55	2° \approx 03'07	
asc. node	4388 Nov 21 09:55	26° \mathbb{I} 01'15	max. Earth dist.	4394 Jan 29 18:20	18° \approx 38'04 2.39508 AU	
min. Earth dist.	4388 Dec 03 05:43	22° \mathbb{I} 41'36 0.44168 AU		4394 Feb 13 14:14	0° \mathbb{H}	
opposition	4388 Dec 11 10:59	19° \mathbb{I} 54'19 1°13'16				
greatest brilliancy	4388 Dec 10 19:59	20° \mathbb{I} 07'07 -2.5m	conjunction	4394 Mar 08 14:08	17° \mathbb{H} 53'40 -1°-3'-51	
direct	4389 Jan 12 13:35	13° \mathbb{I} 30'21	minimum elong	4394 Mar 08 15:13	17° \mathbb{H} 55'47 1°03'52	
	4389 Mar 11 21:48	0° $\overline{5}$		4394 Mar 23 23:32	0° \mathbb{Y}	
	4389 May 07 09:33	0° \mathbb{Q}		4394 Apr 30 23:45	0° \mathbb{B}	
	4389 Jun 27 08:44	0° \mathbb{M}	morning rise	4394 May 17 17:15	13° \mathbb{B} 07'10	

	4394 Jun 08 12:11	0°♂		opposition	4399 Jun 27 12:54	7°♂38'48	-2°-38'-5
asc. node	4394 Jul 14 07:07	26°♂59'21		greatest brilliancy	4399 Jun 28 15:23	7°♂15'04	-1.9m
	4394 Jul 18 09:10	0°♂		min. Earth dist.	4399 Jul 05 16:38	4°♂44'07	0.52582 AU
	4394 Aug 29 09:48	0°♂			4399 Jul 22 06:54	30°♂♂	
	4394 Oct 13 11:29	0°♂		direct	4399 Aug 05 17:14	28°♂34'19	
	4394 Dec 02 15:27	0°♂			4399 Aug 20 12:16	0°♂	
retrograde	4395 Feb 13 01:10	0°♂			4399 Oct 26 02:19	0°♂	
	4395 Mar 02 20:28	1°♂49'52			4399 Dec 09 04:06	0°♂	
	4395 Mar 19 15:16	30°♂♂			4400 Jan 18 09:40	0°♂	
opposition	4395 Apr 11 21:39	22°♂16'48	3°15'11		4400 Feb 26 18:09	0°♂	
greatest brilliancy	4395 Apr 12 01:59	22°♂12'31	-1.2m	asc. node	4400 Mar 05 03:47	5°♂37'02	
min. Earth dist.	4395 Apr 13 02:57	21°♂47'46	0.67802 AU		4400 Apr 06 16:26	0°♂	
direct	4395 May 23 03:45	12°♂21'01			4400 May 18 01:03	0°♂	
desc. node	4395 Jul 23 18:54	29°♂12'55			4400 Jun 30 06:01	0°♂	
	4395 Jul 25 11:46	0°♂		evening set	4400 Jul 14 08:57	9°♂32'04	
	4395 Sep 18 15:14	0°♂			4400 Aug 14 06:27	0°♂	
	4395 Nov 04 00:11	0°♂					
	4395 Dec 16 04:25	0°♂		conjunction	4400 Sep 02 11:43	12°♂30'22	1°07'59
	4396 Jan 24 19:30	0°♂		minimum elong	4400 Sep 02 11:51	12°♂30'35	1°07'59
	4396 Mar 03 01:49	0°♂		max. Earth dist.	4400 Sep 14 07:38	20°♂08'11	2.65200 AU
evening set	4396 Mar 12 22:54	7°♂48'58			4400 Sep 29 17:03	0°♂	
	4396 Apr 10 00:32	0°♂		morning rise	4400 Oct 18 19:08	12°♂09'00	
	4396 May 18 14:08	0°♂			4400 Nov 16 00:42	0°♂	
conjunction	4396 May 21 01:40	1°♂53'56	0°-6'-59		4401 Jan 02 20:57	0°♂	
minimum elong	4396 May 21 02:20	1°♂55'12	0°07'00	desc. node	4401 Feb 20 10:34	0°♂	
behind sun begin	4396 May 20 00:06	1°♂05'03			4401 Mar 14 16:03	13°♂25'24	
behind sun end	4396 May 22 04:34	2°♂45'18			4401 Apr 12 00:06	0°♂	
asc. node	4396 May 31 07:04	9°♂40'34		retrograde	4401 Jun 09 22:18	0°♂	
	4396 Jun 27 13:36	0°♂		opposition	4401 Jul 26 20:25	11°♂11'50	
max. Earth dist.	4396 Jul 11 01:57	9°♂49'48	2.44387 AU	greatest brilliancy	4401 Aug 26 19:08	5°♂52'35	-6°-31'-8
morning rise	4396 Jul 25 03:36	19°♂53'26		min. Earth dist.	4401 Aug 28 14:17	5°♂21'33	-2.7m
	4396 Aug 08 13:10	0°♂			4401 Sep 01 18:32	4°♂10'12	0.39736 AU
	4396 Sep 21 21:50	0°♂		direct	4401 Sep 23 03:22	30°♂♂	
	4396 Nov 08 01:34	0°♂			4401 Sep 28 08:49	29°♂48'23	
	4396 Dec 29 10:35	0°♂			4401 Oct 03 14:53	0°♂	
	4397 Mar 05 15:43	0°♂		asc. node	4401 Dec 14 20:51	0°♂	
retrograde	4397 Apr 07 12:30	5°♂35'06			4402 Jan 21 03:58	24°♂27'13	
	4397 May 07 13:35	30°♂♂			4402 Jan 29 06:29	0°♂	
opposition	4397 May 16 03:21	26°♂48'42	0°55'46		4402 Mar 13 14:16	0°♂	
greatest brilliancy	4397 May 16 09:33	26°♂42'42	-1.4m		4402 Apr 26 07:41	0°♂	
min. Earth dist.	4397 May 21 03:18	24°♂53'01	0.63220 AU		4402 Jun 10 06:06	0°♂	
desc. node	4397 Jun 09 18:05	18°♂39'22		evening set	4402 Jul 26 10:49	0°♂	
direct	4397 Jun 26 12:00	16°♂49'12			4402 Sep 11 11:43	0°♂	
	4397 Aug 16 22:50	0°♂		max. Earth dist.	4402 Oct 07 15:39	16°♂36'53	2.67834 AU
	4397 Oct 10 09:00	0°♂					
	4397 Nov 23 12:54	0°♂		conjunction	4402 Oct 09 23:52	18°♂06'12	0°52'49
	4398 Jan 02 20:15	0°♂		minimum elong	4402 Oct 10 00:55	18°♂07'52	0°52'48
	4398 Feb 10 10:18	0°♂			4402 Oct 28 16:27	0°♂	
	4398 Mar 20 16:06	0°♂		morning rise	4402 Nov 23 02:03	16°♂15'04	
asc. node	4398 Apr 18 05:20	22°♂05'10			4402 Dec 14 09:50	0°♂	
	4398 Apr 28 14:42	0°♂			4403 Jan 29 07:32	0°♂	
evening set	4398 May 22 18:44	18°♂05'42		desc. node	4403 Jan 30 14:56	0°♂51'50	
	4398 Jun 08 00:52	0°♂			4403 Mar 15 08:01	0°♂	
conjunction	4398 Jul 20 21:38	0°♂20'09	0°52'38		4403 Apr 28 15:45	0°♂	
minimum elong	4398 Jul 20 19:45	0°♂16'55	0°52'37		4403 Jun 11 20:44	0°♂	
	4398 Jul 20 09:58	0°♂			4403 Jul 28 01:45	0°♂	
max. Earth dist.	4398 Aug 19 19:18	20°♂39'20	2.57141 AU	retrograde	4403 Oct 06 03:26	0°♂	
	4398 Sep 02 20:46	0°♂			4403 Oct 14 04:53	0°♂27'19	
morning rise	4398 Sep 11 11:17	5°♂39'19		min. Earth dist.	4403 Oct 22 04:22	30°♂♂	
	4398 Oct 19 06:15	0°♂		greatest brilliancy	4403 Nov 09 12:04	25°♂58'47	0.39563 AU
	4398 Dec 06 12:46	0°♂		opposition	4403 Nov 15 12:49	24°♂10'30	-2.8m
	4399 Jan 26 11:15	0°♂		asc. node	4403 Nov 16 00:39	24°♂01'36	-1°-34'-34
	4399 Mar 26 00:19	0°♂		direct	4403 Dec 09 03:46	18°♂54'19	
desc. node	4399 Apr 27 16:56	11°♂38'13			4403 Dec 16 06:08	18°♂34'15	
retrograde	4399 May 22 20:11	15°♂04'34			4404 Jan 31 08:00	0°♂	
					4404 Mar 28 14:13	0°♂	

	4404 May 17 15:49	0°♈			4409 Feb 20 23:23	0°♏		
	4404 Jul 05 12:09	0°♍			4409 Mar 31 12:24	0°♐		
	4404 Aug 22 21:52	0°♊		greatest brilliancy	4409 Apr 06 23:33	5°♐04'59	1.2m	
evening set	4404 Sep 29 22:17	23°♊52'26		morning rise	4409 Apr 16 18:03	12°♐46'28		
	4404 Oct 09 13:53	0°♋			4409 May 08 15:18	0°♑		
max. Earth dist.	4404 Oct 29 16:38	12°♋53'11	2.64997 AU		4409 Jun 16 05:12	0°♒		
					4409 Jul 26 03:18	0°♓		
conjunction	4404 Nov 14 02:03	22°♋51'48	0°18'07	asc. node	4409 Jul 31 00:33	3°♓34'19		
minimum elong	4404 Nov 14 02:36	22°♋52'43	0°18'07		4409 Sep 06 08:02	0°♈		
	4404 Nov 24 23:41	0°♏			4409 Oct 22 02:39	0°♍		
desc. node	4404 Dec 17 13:12	14°♏58'02			4409 Dec 14 10:04	0°♊		
morning rise	4404 Dec 29 03:16	22°♏45'49		retrograde	4410 Feb 17 11:18	19°♊12'25		
	4405 Jan 08 18:54	0°♑		opposition	4410 Mar 29 18:38	9°♊27'09	3°52'19	
	4405 Feb 20 21:31	0°♒		min. Earth dist.	4410 Mar 29 11:36	9°♊34'09	0.67814 AU	
	4405 Apr 03 11:34	0°♏		greatest brilliancy	4410 Mar 29 16:58	9°♊28'48	-1.2m	
	4405 May 13 21:53	0°♐			4410 May 02 10:10	30°♋♍		
	4405 Jun 22 21:09	0°♑		direct	4410 May 09 13:50	29°♋40'58		
	4405 Aug 02 14:52	0°♒			4410 May 16 21:46	0°♊		
	4405 Sep 15 18:28	0°♓			4410 Aug 06 20:51	0°♋		
asc. node	4405 Oct 26 01:45	22°♓02'12		desc. node	4410 Aug 09 10:29	1°♋22'22		
	4405 Nov 18 01:37	0°♈			4410 Sep 27 08:00	0°♏		
retrograde	4405 Dec 06 04:58	2°♈14'52			4410 Nov 11 20:06	0°♑		
	4405 Dec 23 17:47	30°♋♓			4410 Dec 23 18:39	0°♒		
min. Earth dist.	4406 Jan 05 18:21	25°♓50'01	0.52466 AU		4411 Feb 01 08:57	0°♏		
greatest brilliancy	4406 Jan 11 22:07	23°♓30'16	-2.0m	evening set	4411 Feb 14 03:55	9°♏57'03		
opposition	4406 Jan 13 09:42	22°♓56'31	3°42'49		4411 Mar 11 15:27	0°♐		
direct	4406 Feb 17 08:42	15°♓14'58			4411 Apr 18 13:45	0°♑		
	4406 Apr 14 08:54	0°♈						
	4406 Jun 12 05:44	0°♍		conjunction	4411 Apr 22 22:17	3°♑25'42	0°-36'-39	
	4406 Aug 03 00:38	0°♊		minimum elong	4411 Apr 23 01:31	3°♑32'02	0°36'38	
	4406 Sep 21 00:34	0°♋			4411 May 27 01:53	0°♒		
desc. node	4406 Nov 04 11:59	28°♋33'01		max. Earth dist.	4411 Jun 10 11:44	10°♒59'21	2.39077 AU	
evening set	4406 Nov 06 06:50	29°♋43'29		asc. node	4411 Jun 17 22:26	16°♒36'08		
	4406 Nov 06 16:51	0°♏		morning rise	4411 Jul 02 02:56	27°♒10'10		
max. Earth dist.	4406 Nov 25 06:42	12°♏22'17	2.56923 AU		4411 Jul 05 23:06	0°♓		
	4406 Dec 21 01:54	0°♑			4411 Aug 16 21:08	0°♈		
					4411 Sep 30 08:39	0°♍		
conjunction	4406 Dec 23 17:37	1°♑50'41	0°-27'-9		4411 Nov 17 04:56	0°♊		
minimum elong	4406 Dec 23 16:37	1°♑48'56	0°27'08		4412 Jan 10 11:26	0°♋		
	4407 Feb 01 06:56	0°♒		retrograde	4412 Mar 23 15:17	22°♋19'12		
morning rise	4407 Feb 12 05:39	8°♒00'32		opposition	4412 May 01 23:35	13°♋11'28	1°57'27	
	4407 Mar 13 16:49	0°♏		greatest brilliancy	4412 May 02 08:06	13°♋03'09	-1.3m	
	4407 Apr 21 20:44	0°♐		min. Earth dist.	4412 May 05 12:27	11°♋48'32	0.65807 AU	
	4407 May 30 12:19	0°♑		direct	4412 Jun 12 12:38	3°♋09'03		
	4407 Jul 08 13:19	0°♒		desc. node	4412 Jun 26 08:42	4°♋16'33		
	4407 Aug 18 03:18	0°♓			4412 Aug 31 14:09	0°♏		
asc. node	4407 Sep 13 01:19	18°♓05'39			4412 Oct 20 01:25	0°♑		
	4407 Oct 01 01:46	0°♈			4412 Dec 02 02:58	0°♒		
	4407 Nov 22 20:16	0°♍			4413 Jan 11 01:10	0°♏		
retrograde	4408 Jan 14 18:59	14°♍32'41			4413 Feb 18 10:25	0°♐		
min. Earth dist.	4408 Feb 19 16:41	6°♍14'25	0.63209 AU		4413 Mar 28 11:47	0°♑		
opposition	4408 Feb 23 20:55	4°♍34'33	4°41'43	evening set	4413 Apr 26 17:52	22°♑44'40		
greatest brilliancy	4408 Feb 22 22:30	4°♍56'54	-1.4m	asc. node	4413 May 04 22:12	29°♑00'43		
	4408 Mar 07 03:42	30°♋♈			4413 May 06 05:17	0°♒		
direct	4408 Apr 02 11:45	25°♈31'52			4413 Jun 15 09:37	0°♓		
	4408 May 01 11:19	0°♍						
	4408 Jul 09 09:14	0°♊		conjunction	4413 Jun 29 17:39	10°♓22'21	0°35'01	
	4408 Aug 31 00:37	0°♋		minimum elong	4413 Jun 29 15:34	10°♓18'37	0°34'59	
desc. node	4408 Sep 21 11:23	13°♋09'52			4413 Jul 27 13:16	0°♈		
	4408 Oct 17 20:22	0°♏		max. Earth dist.	4413 Aug 07 02:08	7°♈16'02	2.52595 AU	
	4408 Dec 01 08:18	0°♑		morning rise	4413 Aug 25 10:17	19°♈42'32		
evening set	4408 Dec 18 12:28	12°♑06'46			4413 Sep 09 21:12	0°♍		
max. Earth dist.	4409 Jan 02 02:53	22°♑38'21	2.44575 AU		4413 Oct 26 10:10	0°♊		
	4409 Jan 12 04:02	0°♒			4413 Dec 14 11:07	0°♋		
					4414 Feb 06 01:33	0°♏		
conjunction	4409 Feb 11 10:14	22°♒41'39	-1°-3'-12	retrograde	4414 May 03 13:53	28°♏44'44		
minimum elong	4409 Feb 11 09:12	22°♒39'41	1°03'13	desc. node	4414 May 14 07:18	28°♏01'31		

opposition	4414 Jun 09 15:41	20°♂41'52	-1°-5'-22	max. Earth dist.	4419 Oct 21 16:10	2°♂45'51	2.66739 AU
greatest brilliancy	4414 Jun 10 01:31	20°♂32'42	-1.7m				
min. Earth dist.	4414 Jun 16 18:03	18°♂03'30	0.57379 AU	conjunction	4419 Oct 31 22:06	9°♂19'48	0°33'21
direct	4414 Jul 20 01:48	11°♂04'55		minimum elong	4419 Oct 31 23:01	9°♂21'16	0°33'20
	4414 Sep 19 11:49	0°♂			4419 Dec 02 19:30	0°♂	
	4414 Nov 07 13:57	0°♂		morning rise	4419 Dec 15 04:46	8°♂08'16	
	4414 Dec 19 08:54	0°♂		desc. node	4420 Jan 04 04:03	21°♂24'27	
	4415 Jan 27 16:02	0°♂			4420 Jan 16 22:49	0°♂	
	4415 Mar 07 09:53	0°♂			4420 Feb 29 15:28	0°♂	
asc. node	4415 Mar 22 21:53	11°♂53'55			4420 Apr 12 00:16	0°♂	
	4415 Apr 15 19:46	0°♂			4420 May 23 08:59	0°♂	
	4415 May 26 16:56	0°♂			4420 Jul 03 12:17	0°♂	
evening set	4415 Jun 26 09:44	21°♂39'56			4420 Aug 15 05:50	0°♂	
	4415 Jul 08 11:50	0°♂			4420 Oct 05 05:57	0°♂	
				asc. node	4420 Nov 11 19:09	11°♂17'49	
conjunction	4415 Aug 18 09:06	27°♂28'37	1°06'27	retrograde	4420 Nov 17 16:28	11°♂33'10	
minimum elong	4415 Aug 18 08:29	27°♂27'36	1°06'28	min. Earth dist.	4420 Dec 16 00:38	6°♂00'29	0.47116 AU
	4415 Aug 22 04:59	0°♂		greatest brilliancy	4420 Dec 23 04:28	3°♂27'18	-2.3m
max. Earth dist.	4415 Sep 05 19:29	9°♂33'18	2.62656 AU	opposition	4420 Dec 24 07:45	3°♂02'52	2°22'25
morning rise	4415 Oct 05 13:24	28°♂43'55			4421 Jan 02 10:00	30°♂	
	4415 Oct 07 13:04	0°♂		direct	4421 Jan 26 10:31	26°♂08'50	
	4415 Nov 24 02:08	0°♂			4421 Feb 21 05:12	0°♂	
	4416 Jan 11 18:12	0°♂			4421 Apr 29 19:37	0°♂	
	4416 Mar 02 10:29	0°♂			4421 Jun 21 15:42	0°♂	
desc. node	4416 Mar 31 06:35	15°♂55'37			4421 Aug 10 17:06	0°♂	
	4416 Apr 28 16:17	0°♂			4421 Sep 28 01:26	0°♂	
retrograde	4416 Jun 27 20:27	16°♂27'10		evening set	4421 Oct 22 09:13	15°♂31'47	
opposition	4416 Jul 30 15:08	10°♂16'50	-5°-18'-30		4421 Nov 13 13:51	0°♂	
greatest brilliancy	4416 Aug 01 16:39	9°♂37'03	-2.4m	max. Earth dist.	4421 Nov 14 03:00	0°♂21'40	2.60679 AU
min. Earth dist.	4416 Aug 07 19:39	7°♂39'49	0.44359 AU	desc. node	4421 Nov 21 03:23	5°♂00'11	
direct	4416 Sep 04 10:16	2°♂47'16					
	4416 Nov 15 18:13	0°♂		conjunction	4421 Dec 07 11:42	15°♂56'52	0°-9'-7
	4416 Dec 30 12:39	0°♂		minimum elong	4421 Dec 07 11:22	15°♂56'19	0°09'07
asc. node	4417 Feb 06 20:08	27°♂40'38		behind sun begin	4421 Dec 06 18:56	15°♂28'35	
	4417 Feb 10 00:35	0°♂		behind sun end	4421 Dec 08 03:49	16°♂24'04	
	4417 Mar 23 09:38	0°♂			4421 Dec 28 01:46	0°♂	
	4417 May 04 21:02	0°♂		morning rise	4422 Jan 24 02:43	18°♂55'53	
	4417 Jun 17 22:38	0°♂			4422 Feb 08 13:45	0°♂	
	4417 Aug 02 13:31	0°♂			4422 Mar 21 08:36	0°♂	
evening set	4417 Aug 09 15:29	4°♂34'59			4422 Apr 29 21:48	0°♂	
	4417 Sep 18 06:56	0°♂			4422 Jun 07 22:01	0°♂	
					4422 Jul 17 08:31	0°♂	
conjunction	4417 Sep 25 19:49	4°♂48'09	1°01'29		4422 Aug 27 14:55	0°♂	
minimum elong	4417 Sep 25 20:41	4°♂49'33	1°01'28	asc. node	4422 Sep 29 16:55	22°♂06'25	
max. Earth dist.	4417 Sep 28 16:20	6°♂37'13	2.67449 AU		4422 Oct 12 13:42	0°♂	
	4417 Nov 04 10:55	0°♂		retrograde	4422 Dec 31 08:39	29°♂39'12	
morning rise	4417 Nov 09 10:10	3°♂09'34		min. Earth dist.	4423 Feb 03 07:29	22°♂00'59	0.59674 AU
	4417 Dec 21 11:56	0°♂		opposition	4423 Feb 08 23:14	19°♂47'09	4°36'50
	4418 Feb 06 03:54	0°♂		greatest brilliancy	4423 Feb 07 16:59	20°♂17'01	-1.6m
desc. node	4418 Feb 16 05:25	6°♂29'58		direct	4423 Mar 18 08:24	11°♂10'26	
	4418 Mar 24 13:39	0°♂			4423 May 23 11:27	0°♂	
	4418 May 10 07:03	0°♂			4423 Jul 20 00:40	0°♂	
	4418 Jun 28 08:34	0°♂			4423 Sep 08 18:44	0°♂	
retrograde	4418 Sep 15 11:14	29°♂16'09		desc. node	4423 Oct 09 02:16	19°♂01'11	
min. Earth dist.	4418 Oct 13 23:48	24°♂36'57	0.37108 AU		4423 Oct 26 00:56	0°♂	
opposition	4418 Oct 16 00:15	24°♂04'17	-4°-46'-16	evening set	4423 Dec 01 11:32	24°♂29'05	
greatest brilliancy	4418 Oct 15 18:17	24°♂08'19	-2.9m		4423 Dec 09 10:45	0°♂	
direct	4418 Nov 14 10:17	19°♂10'36		max. Earth dist.	4423 Dec 16 03:36	4°♂41'09	2.49788 AU
asc. node	4418 Dec 25 19:24	29°♂01'23			4424 Jan 20 09:27	0°♂	
	4418 Dec 28 02:02	0°♂					
	4419 Feb 21 10:40	0°♂		conjunction	4424 Jan 21 14:30	0°♂53'22	0°-52'-47
	4419 Apr 10 11:32	0°♂		minimum elong	4424 Jan 21 12:50	0°♂50'17	0°52'47
	4419 May 27 16:26	0°♂			4424 Feb 29 09:40	0°♂	
	4419 Jul 14 04:39	0°♂		morning rise	4424 Mar 19 10:08	14°♂38'33	
	4419 Aug 30 22:25	0°♂			4424 Apr 08 03:30	0°♂	
evening set	4419 Sep 16 18:39	10°♂36'50			4424 May 16 09:55	0°♂	
	4419 Oct 17 08:15	0°♂			4424 Jun 24 02:12	0°♂	

	4424 Aug 03 03:11	0°☾		min. Earth dist.	4429 May 30 10:43	3°♏14'38	0.61402 AU
asc. node	4424 Aug 16 16:22	9°☾47'47		desc. node	4429 May 30 22:06	3°♏03'55	
	4424 Sep 14 16:09	0°♏			4429 Jun 08 14:10	30°♏♏	
	4424 Oct 31 17:27	0°♏		direct	4429 Jul 04 19:51	25°♏32'31	
	4425 Jan 01 03:48	0°♏			4429 Aug 01 17:06	0°♏	
retrograde	4425 Feb 04 05:10	6°♏23'33			4429 Oct 03 09:09	0°♏	
	4425 Mar 07 15:29	30°♏♏			4429 Nov 17 17:32	0°≈	
min. Earth dist.	4425 Mar 14 18:45	27°♏13'03	0.66803 AU		4429 Dec 28 10:47	0°♏	
opposition	4425 Mar 16 14:09	26°♏29'42	4°20'07		4430 Feb 05 05:37	0°♏	
greatest brilliancy	4425 Mar 16 04:58	26°♏38'52	-1.3m		4430 Mar 15 14:24	0°♏	
direct	4425 Apr 25 16:51	16°♏57'08		asc. node	4430 Apr 08 13:38	18°♏31'01	
	4425 Jun 18 03:47	0°♏			4430 Apr 23 15:43	0°♏	
	4425 Aug 16 19:22	0°♏			4430 Jun 03 04:32	0°☾	
desc. node	4425 Aug 26 00:48	5°♏18'54		evening set	4430 Jun 05 02:16	1°☾22'40	
	4425 Oct 05 08:16	0°♏			4430 Jul 15 15:48	0°♏	
	4425 Nov 19 08:04	0°♏					
	4425 Dec 31 04:31	0°≈		conjunction	4430 Jul 31 18:41	11°♏01'18	0°59'31
evening set	4426 Jan 20 07:06	15°≈02'45		minimum elong	4430 Jul 31 17:14	10°♏58'50	0°59'31
	4426 Feb 08 20:12	0°♏		max. Earth dist.	4430 Aug 26 08:31	28°♏08'51	2.59334 AU
max. Earth dist.	4426 Feb 28 02:51	14°♏59'50	2.37366 AU		4430 Aug 29 03:48	0°♏	
	4426 Mar 19 04:41	0°♏		morning rise	4430 Sep 20 12:58	14°♏37'53	
					4430 Oct 14 11:28	0°♏	
conjunction	4426 Mar 24 05:21	3°♏58'17	0°-58'-8		4430 Dec 01 09:38	0°♏	
minimum elong	4426 Mar 24 07:54	4°♏03'20	0°58'08		4431 Jan 20 07:03	0°♏	
	4426 Apr 26 03:57	0°♏			4431 Mar 15 17:10	0°♏	
morning rise	4426 Jun 03 21:46	0°♏11'45		desc. node	4431 Apr 17 21:01	15°♏07'20	
	4426 Jun 03 15:38	0°♏		retrograde	4431 Jun 04 03:27	25°♏52'31	
asc. node	4426 Jul 04 16:32	23°♏29'28		opposition	4431 Jul 08 21:26	18°♏51'22	-3°-36'-16
	4426 Jul 13 11:37	0°☾		greatest brilliancy	4431 Jul 10 10:09	18°♏19'29	-2.1m
	4426 Aug 24 09:27	0°♏		min. Earth dist.	4431 Jul 17 09:00	15°♏55'16	0.49694 AU
	4426 Oct 08 03:08	0°♏		direct	4431 Aug 16 02:50	10°♏13'48	
	4426 Nov 26 02:59	0°♏			4431 Oct 15 19:37	0°≈	
	4427 Jan 25 18:00	0°♏			4431 Dec 01 21:45	0°♏	
retrograde	4427 Mar 10 14:55	9°♏32'42			4432 Jan 12 03:02	0°♏	
opposition	4427 Apr 19 11:50	0°♏07'39	2°49'10		4432 Feb 21 00:13	0°♏	
	4427 Apr 19 19:36	30°♏♏		asc. node	4432 Feb 24 13:23	2°♏40'06	
greatest brilliancy	4427 Apr 19 18:28	0°♏01'07	-1.2m		4432 Apr 01 07:27	0°♏	
min. Earth dist.	4427 Apr 21 13:07	29°♏19'03	0.67372 AU		4432 May 12 23:08	0°☾	
direct	4427 May 30 22:33	20°♏08'08			4432 Jun 25 09:26	0°♏	
desc. node	4427 Jul 13 23:31	29°♏42'00		evening set	4432 Jul 24 06:56	19°♏18'33	
	4427 Jul 14 18:15	0°♏			4432 Aug 09 13:39	0°♏	
	4427 Sep 12 10:49	0°♏					
	4427 Oct 29 16:55	0°♏		conjunction	4432 Sep 11 04:05	21°♏05'58	1°06'44
	4427 Dec 11 03:54	0°≈		minimum elong	4432 Sep 11 04:33	21°♏06'43	1°06'44
	4428 Jan 19 21:21	0°♏		max. Earth dist.	4432 Sep 19 16:47	26°♏34'01	2.66232 AU
	4428 Feb 27 04:32	0°♏			4432 Sep 25 01:42	0°♏	
greatest brilliancy	4428 Mar 22 08:28	19°♏06'44	1.2m	morning rise	4432 Oct 26 17:29	20°♏08'14	
evening set	4428 Mar 29 06:23	24°♏34'15			4432 Nov 11 07:11	0°♏	
	4428 Apr 05 03:45	0°♏			4432 Dec 28 19:17	0°♏	
	4428 May 13 18:06	0°♏			4433 Feb 14 12:56	0°♏	
asc. node	4428 May 21 15:00	6°♏00'05		desc. node	4433 Mar 04 21:00	11°♏25'24	
					4433 Apr 04 03:05	0°≈	
conjunction	4428 Jun 05 07:35	17°♏04'37	0°09'54		4433 May 25 20:59	0°♏	
minimum elong	4428 Jun 05 06:43	17°♏03'01	0°09'53	retrograde	4433 Aug 14 03:59	27°♏51'01	
behind sun begin	4428 Jun 04 08:45	16°♏21'55		opposition	4433 Sep 13 05:55	22°♏51'18	-6°-32'-30
behind sun end	4428 Jun 06 04:42	17°♏44'04		greatest brilliancy	4433 Sep 14 10:15	22°♏32'10	-2.8m
	4428 Jun 22 18:30	0°☾		min. Earth dist.	4433 Sep 16 21:11	21°♏52'30	0.37950 AU
max. Earth dist.	4428 Jul 22 06:15	21°☾13'49	2.47426 AU	direct	4433 Oct 14 02:54	17°♏29'13	
	4428 Aug 03 18:17	0°♏			4433 Nov 29 10:54	0°♏	
morning rise	4428 Aug 06 05:18	1°♏42'31		asc. node	4434 Jan 11 11:43	24°♏22'30	
	4428 Sep 17 01:12	0°♏			4434 Jan 20 08:12	0°♏	
	4428 Nov 02 21:00	0°♏			4434 Mar 06 16:28	0°♏	
	4428 Dec 23 02:52	0°♏			4434 Apr 20 11:04	0°☾	
	4429 Feb 20 00:03	0°♏			4434 Jun 05 00:15	0°♏	
retrograde	4429 Apr 16 12:02	13°♏59'44			4434 Jul 21 14:04	0°♏	
opposition	4429 May 24 15:53	5°♏27'05	0°14'40	evening set	4434 Sep 02 09:32	27°♏11'38	
greatest brilliancy	4429 May 22 21:15	6°♏07'37	-1.5m		4434 Sep 06 19:53	0°♏	

max. Earth dist.	4434 Oct 12 19:35	22° 4 49'28	2.67687 AU		4439 Jul 03 05:27	0° II	
					4439 Aug 12 12:55	0° ☿	
conjunction	4434 Oct 17 22:59	26° 4 05'50	0°46'23	asc. node	4439 Sep 03 10:01	15° ☿ 31'53	
minimum elong	4434 Oct 18 00:03	26° 4 07'32	0°46'23		4439 Sep 24 18:02	0° ♈	
	4434 Oct 24 01:56	0° ♈			4439 Nov 13 09:04	0° ♏	
morning rise	4434 Nov 30 23:28	24° ♈ 20'15		retrograde	4440 Jan 22 17:18	23° ♏ 00'34	
	4434 Dec 09 16:59	0° ♏		min. Earth dist.	4440 Feb 28 15:18	14° ♏ 22'23	0.64752 AU
desc. node	4435 Jan 20 19:28	27° ♏ 40'09		opposition	4440 Mar 02 23:10	13° ♏ 02'38	4°37'32
	4435 Jan 24 07:34	0° ☿		greatest brilliancy	4440 Mar 02 05:33	13° ♏ 20'14	-1.4m
	4435 Mar 09 19:18	0° ≈		direct	4440 Apr 11 04:13	3° ♏ 48'03	
	4435 Apr 22 06:49	0° ♏			4440 Jul 02 03:06	0° ♏	
	4435 Jun 04 03:34	0° ♏			4440 Aug 25 13:40	0° ♈	
	4435 Jul 17 14:22	0° ♏		desc. node	4440 Sep 11 15:45	10° ♈ 17'15	
	4435 Sep 04 05:07	0° II			4440 Oct 12 22:42	0° ♏	
retrograde	4435 Oct 28 05:04	16° II 54'23			4440 Nov 26 15:04	0° ☿	
min. Earth dist.	4435 Nov 23 19:00	12° II 08'56	0.41932 AU	evening set	4440 Dec 29 14:50	23° ☿ 30'07	
asc. node	4435 Nov 29 10:42	10° II 19'54			4441 Jan 07 11:29	0° ≈	
opposition	4435 Dec 01 13:00	9° II 38'57	0°08'09	max. Earth dist.	4441 Jan 15 10:03	5° ≈ 53'08	2.41703 AU
greatest brilliancy	4436 Mar 04 06:48	22° II 24'25	-3.6m		4441 Feb 16 05:40	0° ♏	
direct	4436 Jan 01 19:10	3° II 40'41					
	4436 Mar 19 05:08	0° ☿		conjunction	4441 Feb 25 03:22	6° ♏ 52'40	-1°-5'-6
	4436 May 11 04:58	0° ♈		minimum elong	4441 Feb 25 03:23	6° ♏ 52'42	1°05'08
	4436 Jun 30 03:22	0° ♏			4441 Mar 26 17:00	0° ♏	
	4436 Aug 18 01:08	0° ♏			4441 May 03 18:09	0° ♏	
	4436 Oct 04 22:23	0° ♈		morning rise	4441 May 04 00:09	0° ♏ 11'49	
evening set	4436 Oct 08 00:56	1° ♈ 58'27			4441 Jun 11 06:28	0° II	
max. Earth dist.	4436 Nov 04 05:00	19° ♈ 25'54	2.63688 AU	asc. node	4441 Jul 21 08:18	0° ☿ 10'12	
	4436 Nov 20 09:13	0° ♏			4441 Jul 21 02:45	0° ☿	
					4441 Sep 01 03:08	0° ♈	
conjunction	4436 Nov 22 09:04	1° ♏ 18'46	0°08'29		4441 Oct 16 08:57	0° ♏	
minimum elong	4436 Nov 22 09:20	1° ♏ 19'13	0°08'29		4441 Dec 06 10:37	0° ♏	
behind sun begin	4436 Nov 21 16:55	0° ♏ 52'11		retrograde	4442 Feb 25 02:34	26° ♏ 55'45	
behind sun end	4436 Nov 23 01:46	1° ♏ 46'16		opposition	4442 Apr 06 07:33	17° ♏ 16'53	3°31'40
desc. node	4436 Dec 07 17:51	11° ♏ 30'23		greatest brilliancy	4442 Apr 06 09:28	17° ♏ 15'00	-1.2m
	4437 Jan 04 01:58	0° ☿		min. Earth dist.	4442 Apr 06 20:56	17° ♏ 03'37	0.67934 AU
morning rise	4437 Jan 07 02:53	2° ☿ 05'04		direct	4442 May 17 09:45	7° ♏ 24'52	
	4437 Feb 15 23:29	0° ≈		desc. node	4442 Jul 30 14:06	0° ♈ 09'27	
	4437 Mar 29 06:25	0° ♏			4442 Jul 30 06:29	0° ♈	
	4437 May 08 08:32	0° ♏			4442 Sep 21 17:18	0° ♏	
	4437 Jun 16 21:47	0° ♏			4442 Nov 06 18:31	0° ☿	
	4437 Jul 27 00:22	0° II			4442 Dec 18 21:37	0° ≈	
	4437 Sep 07 15:02	0° ☿			4443 Jan 27 13:16	0° ♏	
asc. node	4437 Oct 16 10:45	23° ☿ 40'59		evening set	4443 Mar 01 11:44	25° ♏ 46'28	
	4437 Oct 28 21:01	0° ♈			4443 Mar 06 20:07	0° ♏	
retrograde	4437 Dec 15 18:49	13° ♈ 06'26			4443 Apr 13 18:25	0° ♏	
min. Earth dist.	4438 Jan 16 13:36	6° ♈ 14'33	0.55214 AU				
greatest brilliancy	4438 Jan 22 02:56	4° ♈ 06'04	-1.8m	conjunction	4443 May 09 13:18	20° ♏ 10'50	0°-20'-11
opposition	4438 Jan 23 14:24	3° ♈ 31'47	4°11'10	minimum elong	4443 May 09 15:16	20° ♏ 14'38	0°20'11
	4438 Feb 02 07:09	30° ♏			4443 May 22 06:32	0° II	
direct	4438 Feb 28 12:05	25° ☿ 28'18		asc. node	4443 Jun 08 07:50	12° II 59'03	
	4438 Mar 29 04:11	0° ♈		max. Earth dist.	4443 Jul 01 02:39	29° II 57'48	2.41924 AU
	4438 Jun 05 07:14	0° ♏			4443 Jul 01 03:51	0° ☿	
	4438 Jul 28 14:42	0° ♏		morning rise	4443 Jul 16 03:37	10° ☿ 55'21	
	4438 Sep 16 03:52	0° ♈			4443 Aug 12 01:04	0° ♈	
desc. node	4438 Oct 25 16:52	25° ♈ 11'29			4443 Sep 25 09:07	0° ♏	
	4438 Nov 02 01:08	0° ♏			4443 Nov 11 17:01	0° ♏	
evening set	4438 Nov 15 03:09	8° ♏ 40'22			4444 Jan 02 23:18	0° ♈	
max. Earth dist.	4438 Dec 02 05:12	20° ♏ 12'26	2.54543 AU		4444 Mar 24 20:05	0° ♏	
	4438 Dec 16 10:41	0° ☿		retrograde	4444 Mar 31 23:53	0° ♏ 18'23	
					4444 Apr 07 23:39	30° ♏	
conjunction	4439 Jan 02 15:00	12° ☿ 03'14	0°-37'-14	opposition	4444 May 09 23:46	21° ♈ 21'56	1°22'43
minimum elong	4439 Jan 02 13:39	12° ☿ 00'50	0°37'13	greatest brilliancy	4444 May 10 07:29	21° ♈ 14'27	-1.4m
	4439 Jan 27 13:44	0° ≈		min. Earth dist.	4444 May 14 08:33	19° ♈ 40'18	0.64493 AU
morning rise	4439 Feb 24 06:49	20° ≈ 31'09		desc. node	4444 Jun 16 13:15	11° ♈ 26'12	
	4439 Mar 08 20:13	0° ♏		direct	4444 Jun 20 11:52	11° ♈ 20'18	
	4439 Apr 16 20:32	0° ♏			4444 Aug 23 01:15	0° ♏	
	4439 May 25 08:28	0° ♏			4444 Oct 14 00:06	0° ☿	

	4444 Nov 26 17:05	0°♊		minimum elong	4449 Oct 04 00:44	12°♊57'59	0°56'47
	4445 Jan 05 21:02	0°♋		max. Earth dist.	4449 Oct 03 21:18	12°♊52'32	2.67778 AU
	4445 Feb 13 09:16	0°♌			4449 Oct 30 19:33	0°♌	
	4445 Mar 23 12:46	0°♍		morning rise	4449 Nov 17 05:51	11°♌06'59	
asc. node	4445 Apr 25 06:34	25°♍22'06			4449 Dec 16 16:25	0°♎	
	4445 May 01 08:15	0°♎			4450 Jan 31 21:56	0°♏	
evening set	4445 May 11 19:26	7°♎55'15		desc. node	4450 Feb 06 10:07	3°♏36'12	
	4445 Jun 10 14:42	0°♏			4450 Mar 18 12:07	0°♐	
					4450 May 02 17:30	0°♑	
conjunction	4445 Jul 12 01:28	22°♏29'18	0°46'02		4450 Jun 17 11:57	0°♒	
minimum elong	4445 Jul 11 23:24	22°♏25'40	0°46'00		4450 Aug 06 19:40	0°♓	
	4445 Jul 22 19:52	0°♑		retrograde	4450 Oct 02 06:37	17°♓34'33	
max. Earth dist.	4445 Aug 14 13:53	15°♑34'19	2.55194 AU	min. Earth dist.	4450 Oct 29 01:30	13°♓09'17	0.38105 AU
morning rise	4445 Sep 04 07:53	29°♑26'48		opposition	4450 Nov 02 21:54	11°♓47'01	-3°00'-7
	4445 Sep 05 03:59	0°♒		greatest brilliancy	4450 Nov 02 07:42	11°♓57'04	-2.9m
	4445 Oct 21 13:21	0°♓		direct	4450 Dec 02 11:51	6°♓40'11	
	4445 Dec 09 01:47	0°♔		asc. node	4450 Dec 16 04:28	7°♓51'51	
	4446 Jan 29 21:45	0°♕			4451 Feb 10 13:05	0°♔	
	4446 Apr 03 08:34	0°♖			4451 Apr 03 07:12	0°♕	
desc. node	4446 May 04 12:27	7°♖42'10			4451 May 21 21:15	0°♑	
retrograde	4446 May 14 03:57	8°♖14'58			4451 Jul 09 01:42	0°♒	
opposition	4446 Jun 19 12:30	0°♖31'39	-1°-57'-9		4451 Aug 26 03:45	0°♓	
greatest brilliancy	4446 Jun 20 07:27	0°♖14'21	-1.8m	evening set	4451 Sep 24 21:44	18°♓42'04	
	4446 Jun 20 23:08	30°♒♕			4451 Oct 12 17:14	0°♔	
min. Earth dist.	4446 Jun 27 06:37	27°♕42'08	0.54807 AU	max. Earth dist.	4451 Oct 26 23:33	9°♔07'06	2.65884 AU
direct	4446 Jul 29 08:34	21°♕10'13					
	4446 Sep 06 13:35	0°♖		conjunction	4451 Nov 08 23:37	17°♔29'55	0°24'42
	4446 Oct 31 06:30	0°♊		minimum elong	4451 Nov 09 00:21	17°♔31'06	0°24'42
	4446 Dec 13 04:29	0°♋			4451 Nov 28 04:23	0°♌	
	4447 Jan 21 23:04	0°♌		morning rise	4451 Dec 23 14:39	16°♌49'47	
	4447 Mar 01 23:58	0°♍		desc. node	4451 Dec 25 08:26	17°♌59'37	
asc. node	4447 Mar 13 04:52	8°♍33'38			4452 Jan 12 03:50	0°♏	
	4447 Apr 10 15:21	0°♎			4452 Feb 24 13:19	0°♐	
	4447 May 21 17:32	0°♏			4452 Apr 06 11:42	0°♑	
	4447 Jul 03 16:32	0°♑			4452 May 17 07:27	0°♒	
evening set	4447 Jul 07 10:56	2°♑34'04			4452 Jun 26 17:05	0°♓	
	4447 Aug 17 12:36	0°♒			4452 Aug 07 02:05	0°♔	
					4452 Sep 21 22:56	0°♕	
conjunction	4447 Aug 27 17:24	6°♒40'35	1°07'56	asc. node	4452 Nov 02 02:48	19°♕33'14	
minimum elong	4447 Aug 27 17:14	6°♒40'19	1°07'56	retrograde	4452 Nov 28 12:07	24°♕10'14	
max. Earth dist.	4447 Sep 11 11:38	16°♒15'21	2.64175 AU	min. Earth dist.	4452 Dec 28 00:57	18°♕09'11	0.50106 AU
	4447 Oct 02 21:02	0°♓		greatest brilliancy	4453 Jan 03 16:34	15°♕41'44	-2.1m
morning rise	4447 Oct 13 18:42	6°♓56'57		opposition	4453 Jan 05 02:28	15°♕10'18	3°14'33
	4447 Nov 19 06:19	0°♔		direct	4453 Feb 08 06:31	7°♕48'47	
	4448 Jan 06 10:08	0°♕			4453 Apr 20 20:31	0°♑	
	4448 Feb 24 18:21	0°♖			4453 Jun 15 13:48	0°♒	
desc. node	4448 Mar 21 11:15	15°♖02'36			4453 Aug 05 13:23	0°♓	
	4448 Apr 17 10:01	0°♊			4453 Sep 23 06:53	0°♔	
	4448 Jul 07 04:24	0°♋		evening set	4453 Oct 30 19:46	24°♔01'42	
retrograde	4448 Jul 13 12:52	0°♋14'59			4453 Nov 08 22:32	0°♌	
	4448 Jul 19 19:49	30°♒♊		desc. node	4453 Nov 11 07:23	1°♌33'41	
opposition	4448 Aug 14 06:57	24°♊33'43	-6°-6'-39	max. Earth dist.	4453 Nov 20 09:08	7°♌34'47	2.58701 AU
greatest brilliancy	4448 Aug 16 08:13	23°♊56'19	-2.6m				
min. Earth dist.	4448 Aug 21 13:35	22°♊22'15	0.41649 AU	conjunction	4453 Dec 16 13:51	25°♌17'30	0°-19'-34
direct	4448 Sep 17 08:13	17°♊50'30		minimum elong	4453 Dec 16 13:08	25°♌16'16	0°19'35
	4448 Nov 01 07:53	0°♋			4453 Dec 23 09:57	0°♏	
	4448 Dec 21 21:06	0°♌		morning rise	4454 Feb 03 15:22	29°♏53'02	
asc. node	4449 Jan 28 04:34	25°♌49'53			4454 Feb 03 19:13	0°♐	
	4449 Feb 03 01:52	0°♍			4454 Mar 16 09:46	0°♑	
	4449 Mar 17 08:19	0°♎			4454 Apr 24 18:11	0°♒	
	4449 Apr 29 09:47	0°♏			4454 Jun 02 13:20	0°♓	
	4449 Jun 12 20:58	0°♑			4454 Jul 11 17:18	0°♔	
	4449 Jul 28 18:23	0°♒			4454 Aug 21 11:58	0°♕	
evening set	4449 Aug 18 12:49	13°♒20'46		asc. node	4454 Sep 20 01:59	20°♕22'01	
	4449 Sep 13 15:17	0°♓			4454 Oct 04 23:54	0°♔	
					4454 Nov 30 08:33	0°♕	
conjunction	4449 Oct 03 23:44	12°♓56'23	0°56'47	retrograde	4455 Jan 08 17:49	8°♕47'44	

min. Earth dist.	4455 Feb 12 19:21	0° \mathbb{M} 46'31	0.61745 AU		4460 Jan 14 22:22	0° \mathbb{H}	
	4455 Feb 14 18:21	30° \mathbb{R} Ω			4460 Feb 22 06:54	0° \mathbb{Y}	
opposition	4455 Feb 17 15:25	28° Ω 51'20	4°42'03		4460 Mar 31 06:56	0° \mathbb{B}	
greatest brilliancy	4455 Feb 16 13:22	29° Ω 17'13	-1.5m	evening set	4460 Apr 14 12:01	11° \mathbb{B} 07'54	
direct	4455 Mar 27 17:57	19° Ω 59'20			4460 May 08 22:02	0° \mathbb{II}	
	4455 May 12 05:35	0° \mathbb{M}		asc. node	4460 May 11 22:50	2° \mathbb{II} 19'00	
	4455 Jul 13 19:05	0° \mathbb{A}			4460 Jun 17 23:21	0° \mathbb{S}	
	4455 Sep 03 14:40	0° \mathbb{M}					
desc. node	4455 Sep 29 06:36	15° \mathbb{M} 53'50		conjunction	4460 Jun 19 13:34	1° \mathbb{S} 09'51	0°25'08
	4455 Oct 21 05:44	0° \mathbb{J}		minimum elong	4460 Jun 19 11:46	1° \mathbb{S} 06'33	0°25'07
	4455 Dec 04 17:59	0° \mathbb{Z}			4460 Jul 29 23:49	0° Ω	
evening set	4455 Dec 11 12:15	4° \mathbb{Z} 43'26		max. Earth dist.	4460 Jul 31 18:01	1° Ω 13'21	2.50350 AU
max. Earth dist.	4455 Dec 25 14:49	14° \mathbb{Z} 43'27	2.46933 AU	morning rise	4460 Aug 17 10:59	12° Ω 42'31	
	4456 Jan 15 16:19	0° \approx			4460 Sep 12 05:43	0° \mathbb{M}	
					4460 Oct 28 19:48	0° \mathbb{A}	
conjunction	4456 Feb 02 13:49	13° \approx 17'27	0°-59'-40		4460 Dec 17 06:07	0° \mathbb{M}	
minimum elong	4456 Feb 02 12:21	13° \approx 14'42	0°59'40		4461 Feb 10 11:14	0° \mathbb{J}	
	4456 Feb 24 14:38	0° \mathbb{H}		retrograde	4461 Apr 25 23:28	22° \mathbb{J} 42'39	
morning rise	4456 Apr 03 21:39	0° \mathbb{Y} 30'03		desc. node	4461 May 21 02:51	18° \mathbb{J} 46'38	
	4456 Apr 03 06:19	0° \mathbb{Y}		opposition	4461 Jun 02 14:04	14° \mathbb{J} 25'41	0°-30'-7
	4456 May 11 10:48	0° \mathbb{B}		greatest brilliancy	4461 Jun 02 18:16	14° \mathbb{J} 21'43	-1.6m
greatest brilliancy	4456 May 23 15:54	9° \mathbb{B} 33'44	1.2m	min. Earth dist.	4461 Jun 09 03:18	11° \mathbb{J} 57'42	0.59294 AU
	4456 Jun 19 01:04	0° \mathbb{II}		direct	4461 Jul 13 09:59	4° \mathbb{J} 39'15	
	4456 Jul 28 23:09	0° \mathbb{S}			4461 Sep 25 08:09	0° \mathbb{Z}	
asc. node	4456 Aug 07 01:42	6° \mathbb{S} 38'09			4461 Nov 11 13:15	0° \approx	
	4456 Sep 09 05:08	0° Ω			4461 Dec 22 20:28	0° \mathbb{H}	
	4456 Oct 25 08:03	0° \mathbb{M}			4462 Jan 30 21:55	0° \mathbb{Y}	
	4456 Dec 19 16:49	0° \mathbb{A}			4462 Mar 10 11:09	0° \mathbb{B}	
retrograde	4457 Feb 11 19:31	14° \mathbb{A} 14'53		asc. node	4462 Mar 29 22:55	15° \mathbb{B} 01'22	
min. Earth dist.	4457 Mar 23 05:35	4° \mathbb{A} 48'17	0.67488 AU		4462 Apr 18 16:01	0° \mathbb{II}	
opposition	4457 Mar 24 04:32	4° \mathbb{A} 25'24	4°05'04		4462 May 29 08:04	0° \mathbb{S}	
greatest brilliancy	4457 Mar 23 23:43	4° \mathbb{A} 30'12	-1.2m	evening set	4462 Jun 17 11:55	13° \mathbb{S} 40'33	
	4457 Apr 04 19:07	30° \mathbb{R} \mathbb{M}			4462 Jul 10 22:03	0° Ω	
direct	4457 May 03 17:13	24° \mathbb{M} 44'42					
	4457 Jun 04 13:23	0° \mathbb{A}		conjunction	4462 Aug 11 00:37	21° Ω 04'28	1°04'15
	4457 Aug 10 11:14	0° \mathbb{M}		minimum elong	4462 Aug 10 23:38	21° Ω 02'50	1°04'14
desc. node	4457 Aug 16 05:39	3° \mathbb{M} 11'39			4462 Aug 24 11:31	0° \mathbb{M}	
	4457 Sep 30 02:45	0° \mathbb{J}		max. Earth dist.	4462 Sep 01 14:09	5° \mathbb{M} 19'51	2.61269 AU
	4457 Nov 14 10:48	0° \mathbb{Z}		morning rise	4462 Sep 29 06:16	23° \mathbb{M} 16'42	
	4457 Dec 26 09:42	0° \approx			4462 Oct 09 18:12	0° \mathbb{A}	
evening set	4458 Feb 02 22:16	29° \approx 07'48			4462 Nov 26 10:10	0° \mathbb{M}	
	4458 Feb 04 01:18	0° \mathbb{H}			4463 Jan 14 12:50	0° \mathbb{J}	
	4458 Mar 14 08:59	0° \mathbb{Y}			4463 Mar 07 11:30	0° \mathbb{Z}	
				desc. node	4463 Apr 08 01:56	16° \mathbb{Z} 24'41	
conjunction	4458 Apr 09 19:35	20° \mathbb{Y} 55'16	0°-47'-30		4463 May 10 03:09	0° \approx	
minimum elong	4458 Apr 09 23:00	21° \mathbb{Y} 02'01	0°47'30	retrograde	4463 Jun 17 13:52	7° \approx 31'34	
	4458 Apr 21 07:32	0° \mathbb{B}		opposition	4463 Jul 21 05:43	0° \approx 57'38	-4°-35'-8
max. Earth dist.	4458 May 11 17:24	16° \mathbb{B} 00'47	2.37245 AU	greatest brilliancy	4463 Jul 23 03:08	0° \approx 19'38	-2.2m
	4458 May 29 18:43	0° \mathbb{II}			4463 Jul 24 02:31	30° \mathbb{R} \mathbb{Z}	
morning rise	4458 Jun 20 07:51	16° \mathbb{II} 23'45		min. Earth dist.	4463 Jul 29 17:14	28° \mathbb{Z} 08'15	0.46727 AU
asc. node	4458 Jun 24 23:26	19° \mathbb{II} 53'11		direct	4463 Aug 27 05:20	22° \mathbb{Z} 54'25	
	4458 Jul 08 14:18	0° \mathbb{S}			4463 Sep 29 20:49	0° \approx	
	4458 Aug 19 10:42	0° Ω			4463 Nov 23 11:35	0° \mathbb{H}	
	4458 Oct 02 22:44	0° \mathbb{M}			4464 Jan 05 06:52	0° \mathbb{Y}	
	4458 Nov 20 02:47	0° \mathbb{A}		asc. node	4464 Feb 14 21:26	29° \mathbb{Y} 58'06	
	4459 Jan 15 03:49	0° \mathbb{M}			4464 Feb 14 22:28	0° \mathbb{B}	
retrograde	4459 Mar 18 12:58	17° \mathbb{M} 17'17			4464 Mar 26 17:44	0° \mathbb{II}	
opposition	4459 Apr 27 04:05	8° \mathbb{M} 01'24	2°20'01		4464 May 07 18:28	0° \mathbb{S}	
greatest brilliancy	4459 Apr 27 12:07	7° \mathbb{M} 53'32	-1.3m		4464 Jun 20 11:37	0° Ω	
min. Earth dist.	4459 Apr 30 01:30	6° \mathbb{M} 53'19	0.66638 AU	evening set	4464 Aug 02 18:37	28° Ω 38'49	
	4459 May 21 00:00	30° \mathbb{R} \mathbb{A}			4464 Aug 04 20:29	0° \mathbb{M}	
direct	4459 Jun 07 17:19	27° \mathbb{A} 59'37					
	4459 Jun 26 10:45	0° \mathbb{M}		conjunction	4464 Sep 19 15:13	29° \mathbb{M} 29'06	1°04'06
desc. node	4459 Jul 04 04:07	1° \mathbb{M} 50'05		minimum elong	4464 Sep 19 15:57	29° \mathbb{M} 30'16	1°04'06
	4459 Sep 05 17:35	0° \mathbb{J}			4464 Sep 20 10:35	0° \mathbb{A}	
	4459 Oct 24 05:15	0° \mathbb{Z}		max. Earth dist.	4464 Sep 24 23:41	2° \mathbb{A} 54'02	2.67004 AU
	4459 Dec 06 01:37	0° \approx		morning rise	4464 Nov 03 14:25	28° \mathbb{A} 05'03	

	4464 Nov 06 14:52	0°♌		min. Earth dist.	4470 Jan 26 20:26	15°♌55'46	0.57790 AU
	4464 Dec 23 20:24	0°♏		greatest brilliancy	4470 Jan 31 18:18	14°♌00'39	-1.7m
	4465 Feb 08 22:48	0°♐		opposition	4470 Feb 02 03:22	13°♌28'15	4°29'19
desc. node	4465 Feb 23 00:46	8°♐58'00		direct	4470 Mar 10 21:47	5°♌05'15	
	4465 Mar 28 04:43	0°♑			4470 May 28 11:10	0°♐	
	4465 May 15 14:00	0°♒			4470 Jul 22 23:02	0°♑	
	4465 Jul 08 13:10	0°♓			4470 Sep 11 04:55	0°♌	
retrograde	4465 Sep 01 12:09	15°♓39'17		desc. node	4470 Oct 15 21:50	21°♌54'38	
opposition	4465 Oct 01 12:41	10°♓41'48	-5°-49'-28		4470 Oct 28 08:22	0°♏	
greatest brilliancy	4465 Oct 01 21:06	10°♓36'13	-2.9m	evening set	4470 Nov 24 06:15	17°♏57'13	
min. Earth dist.	4465 Oct 02 02:41	10°♓32'31	0.37055 AU	max. Earth dist.	4470 Dec 09 17:45	28°♏34'04	2.51989 AU
direct	4465 Oct 31 08:17	5°♓44'16			4470 Dec 11 19:19	0°♐	
asc. node	4466 Jan 01 20:02	26°♓08'05					
	4466 Jan 08 20:31	0°♑		conjunction	4471 Jan 13 01:48	22°♐52'17	0°-46'-35
	4466 Feb 26 23:13	0°♒		minimum elong	4471 Jan 13 00:12	22°♐49'24	0°46'34
	4466 Apr 14 05:51	0°♓			4471 Jan 22 21:07	0°♑	
	4466 May 30 14:22	0°♌			4471 Mar 04 00:51	0°♒	
	4466 Jul 16 15:15	0°♐		morning rise	4471 Mar 09 09:15	4°♒05'00	
	4466 Sep 02 03:04	0°♑			4471 Apr 11 21:47	0°♓	
evening set	4466 Sep 10 16:11	5°♑23'42			4471 May 20 06:29	0°♑	
max. Earth dist.	4466 Oct 17 23:25	29°♑02'48	2.67267 AU		4471 Jun 27 23:56	0°♒	
	4466 Oct 19 11:18	0°♌			4471 Aug 07 02:02	0°♓	
				asc. node	4471 Aug 24 17:18	12°♓40'41	
conjunction	4466 Oct 25 22:41	4°♌08'06	0°39'03		4471 Sep 18 18:57	0°♌	
minimum elong	4466 Oct 25 23:41	4°♌09'42	0°39'03		4471 Nov 05 13:32	0°♐	
	4466 Dec 05 00:34	0°♏			4472 Jan 16 09:03	0°♑	
morning rise	4466 Dec 09 01:12	2°♏37'44		retrograde	4472 Jan 30 12:21	1°♑14'25	
desc. node	4467 Jan 10 23:23	24°♏22'16			4472 Feb 13 02:10	30°♒♐	
	4467 Jan 19 09:14	0°♐		min. Earth dist.	4472 Mar 08 09:14	22°♐17'30	0.66020 AU
	4467 Mar 04 10:32	0°♑		opposition	4472 Mar 10 20:36	21°♐18'12	4°28'51
	4467 Apr 16 06:40	0°♒		greatest brilliancy	4472 Mar 10 07:48	21°♐30'59	-1.3m
	4467 May 28 05:38	0°♓		direct	4472 Apr 19 14:15	11°♐52'57	
	4467 Jul 09 04:05	0°♑			4472 Jun 23 17:05	0°♑	
	4467 Aug 22 12:02	0°♒			4472 Aug 19 20:17	0°♌	
	4467 Oct 24 19:55	0°♓		desc. node	4472 Sep 01 20:16	7°♌38'23	
retrograde	4467 Nov 09 17:56	1°♓48'12			4472 Oct 07 22:09	0°♏	
asc. node	4467 Nov 19 20:10	1°♓02'36			4472 Nov 21 20:07	0°♐	
	4467 Nov 25 10:06	30°♒♒			4473 Jan 02 17:58	0°♑	
min. Earth dist.	4467 Dec 07 05:00	26°♒38'25	0.44713 AU	evening set	4473 Jan 10 11:33	5°♑43'50	
opposition	4467 Dec 15 11:22	23°♒48'15	1°32'15	max. Earth dist.	4473 Feb 03 21:40	24°♑10'33	2.39060 AU
greatest brilliancy	4467 Dec 14 16:42	24°♒04'21	-2.4m		4473 Feb 11 11:40	0°♒	
direct	4468 Jan 16 17:19	17°♒18'36					
	4468 Mar 06 17:48	0°♓		conjunction	4473 Mar 11 22:19	22°♒08'52	-1°-2'-57
	4468 May 04 04:22	0°♌		minimum elong	4473 Mar 11 23:46	22°♒11'43	1°02'58
	4468 Jun 24 13:45	0°♐			4473 Mar 21 21:48	0°♓	
	4468 Aug 13 02:15	0°♑			4473 Apr 28 21:50	0°♑	
	4468 Sep 30 06:07	0°♌		morning rise	4473 May 21 12:04	17°♒42'31	
evening set	4468 Oct 16 04:35	10°♌08'51			4473 Jun 06 09:03	0°♒	
max. Earth dist.	4468 Nov 09 20:21	26°♌06'38	2.62120 AU	asc. node	4473 Jul 11 17:27	26°♒43'32	
	4468 Nov 15 18:39	0°♏			4473 Jul 16 03:47	0°♓	
desc. node	4468 Nov 27 22:45	8°♏03'13			4473 Aug 27 00:56	0°♌	
					4473 Oct 10 20:52	0°♐	
conjunction	4468 Nov 30 21:14	10°♏00'41	0°-1'-39		4473 Nov 29 11:10	0°♑	
minimum elong	4468 Nov 30 21:13	10°♏00'39	0°01'39		4474 Feb 03 13:37	0°♌	
behind sun begin	4468 Nov 30 02:01	9°♏28'37		retrograde	4474 Mar 04 19:06	4°♌38'04	
behind sun end	4468 Dec 01 16:25	10°♏32'41			4474 Mar 31 18:04	30°♒♑	
	4468 Dec 30 09:35	0°♐		opposition	4474 Apr 13 20:40	25°♑06'28	3°07'49
morning rise	4469 Jan 16 13:48	11°♐54'31		greatest brilliancy	4474 Apr 14 01:29	25°♑01'42	-1.2m
	4469 Feb 11 02:37	0°♑		min. Earth dist.	4474 Apr 15 06:19	24°♑33'11	0.67755 AU
	4469 Mar 24 03:16	0°♒		direct	4474 May 25 04:35	15°♑09'35	
	4469 May 02 22:12	0°♓		desc. node	4474 Jul 20 18:44	29°♑48'19	
	4469 Jun 11 03:44	0°♑			4474 Jul 21 05:22	0°♌	
	4469 Jul 20 19:35	0°♒			4474 Sep 15 19:16	0°♏	
	4469 Aug 31 11:44	0°♓			4474 Nov 01 13:46	0°♐	
asc. node	4469 Oct 06 18:22	23°♓33'24			4474 Dec 13 22:37	0°♑	
	4469 Oct 17 19:58	0°♌			4475 Jan 22 16:05	0°♒	
retrograde	4469 Dec 24 20:22	23°♌14'04			4475 Mar 01 23:24	0°♓	

evening set	4475 Mar 17 12:44	12°♈18'27			4479 Nov 14 12:29	0°♍		
	4475 Apr 08 22:05	0°♉			4480 Jan 01 06:33	0°♈		
	4475 May 17 10:46	0°♊			4480 Feb 18 14:55	0°♉		
				desc. node	4480 Mar 11 15:56	13°♊25'23		
conjunction	4475 May 25 13:33	6°♊12'14	0°-2'-50		4480 Apr 08 14:36	0°♊		
minimum elong	4475 May 25 13:49	6°♊12'44	0°02'51		4480 Jun 03 21:15	0°♋		
behind sun begin	4475 May 24 09:34	5°♊18'57		retrograde	4480 Jul 30 21:15	15°♋38'28		
behind sun end	4475 May 26 18:03	7°♊06'26		opposition	4480 Aug 30 14:03	10°♋24'07	-6°-34'-17	
asc. node	4475 May 29 16:07	9°♊19'25		greatest brilliancy	4480 Sep 01 07:13	9°♋55'02	-2.7m	
	4475 Jun 26 08:37	0°♋		min. Earth dist.	4480 Sep 05 05:17	8°♋49'03	0.39331 AU	
max. Earth dist.	4475 Jul 14 17:27	13°♋20'58	2.44974 AU	direct	4480 Oct 01 18:57	4°♋29'14		
morning rise	4475 Jul 29 01:16	23°♋33'07			4480 Dec 10 17:28	0°♌		
	4475 Aug 07 05:52	0°♌		asc. node	4481 Jan 18 12:43	24°♌48'40		
	4475 Sep 20 11:22	0°♍			4481 Jan 26 05:08	0°♌		
	4475 Nov 06 10:00	0°♎			4481 Mar 10 21:21	0°♊		
	4475 Dec 27 07:04	0°♍			4481 Apr 23 18:11	0°♋		
	4476 Feb 28 03:36	0°♈			4481 Jun 07 17:52	0°♌		
retrograde	4476 Apr 09 15:53	8°♈29'45			4481 Jul 23 22:59	0°♍		
	4476 May 17 15:10	30°♍		evening set	4481 Aug 27 02:33	21°♍48'10		
opposition	4476 May 18 05:54	29°♍45'51	0°44'26		4481 Sep 09 00:12	0°♎		
greatest brilliancy	4476 May 18 11:05	29°♍40'52	-1.4m	max. Earth dist.	4481 Oct 09 00:58	19°♎03'58	2.67837 AU	
min. Earth dist.	4476 May 23 10:08	27°♍46'25	0.62910 AU					
desc. node	4476 Jun 06 17:36	22°♍53'45		conjunction	4481 Oct 12 00:00	20°♎56'50	0°51'03	
direct	4476 Jun 28 15:03	19°♍46'56		minimum elong	4481 Oct 12 01:04	20°♎58'32	0°51'03	
	4476 Aug 11 23:45	0°♈			4481 Oct 26 05:24	0°♍		
	4476 Oct 07 12:07	0°♉		morning rise	4481 Nov 25 01:40	19°♍06'00		
	4476 Nov 21 02:56	0°♊			4481 Dec 11 23:09	0°♈		
	4476 Dec 31 14:44	0°♋			4482 Jan 26 20:32	0°♉		
	4477 Feb 08 06:34	0°♌		desc. node	4482 Jan 27 14:47	0°♊30'10		
	4477 Mar 18 12:34	0°♍			4482 Mar 12 19:24	0°♋		
asc. node	4477 Apr 15 14:32	21°♍44'38			4482 Apr 25 23:25	0°♌		
	4477 Apr 26 10:18	0°♊			4482 Jun 08 20:38	0°♍		
evening set	4477 May 25 21:49	22°♊02'33			4482 Jul 24 04:53	0°♋		
	4477 Jun 05 18:56	0°♋			4482 Sep 19 17:43	0°♊		
	4477 Jul 18 02:10	0°♌		retrograde	4482 Oct 17 13:07	5°♊05'56		
				min. Earth dist.	4482 Nov 12 20:46	0°♊34'37	0.39955 AU	
conjunction	4477 Jul 23 13:06	3°♌45'56	0°54'39		4482 Nov 14 18:57	30°♌		
minimum elong	4477 Jul 23 11:20	3°♌42'53	0°54'38	opposition	4482 Nov 19 15:52	28°♌30'30	-1°-8'-25	
max. Earth dist.	4477 Aug 21 12:06	23°♌23'12	2.57579 AU	greatest brilliancy	4482 Nov 19 06:29	28°♌37'41	-2.7m	
	4477 Aug 31 10:58	0°♍		asc. node	4482 Dec 06 11:17	24°♌11'23		
morning rise	4477 Sep 13 17:59	8°♍44'04		direct	4482 Dec 20 02:56	22°♌57'30		
	4477 Oct 16 18:05	0°♎			4483 Jan 24 03:25	0°♊		
	4477 Dec 03 20:46	0°♍			4483 Mar 26 01:47	0°♋		
	4478 Jan 23 10:07	0°♈			4483 May 15 17:57	0°♌		
	4478 Mar 21 09:22	0°♉			4483 Jul 03 19:42	0°♍		
desc. node	4478 Apr 24 16:21	13°♉22'25			4483 Aug 21 08:16	0°♎		
retrograde	4478 May 25 15:58	18°♉25'11		evening set	4483 Oct 02 23:44	26°♎45'28		
opposition	4478 Jun 30 03:55	11°♉04'08	-2°-52'-45		4483 Oct 08 02:20	0°♍		
greatest brilliancy	4478 Jul 01 09:01	10°♉38'13	-2.0m	max. Earth dist.	4483 Nov 01 08:52	15°♍32'41	2.64777 AU	
min. Earth dist.	4478 Jul 08 09:24	8°♉08'39	0.52045 AU					
direct	4478 Aug 08 04:56	2°♉04'03		conjunction	4483 Nov 17 03:17	25°♍46'57	0°15'27	
	4478 Oct 22 15:59	0°♊		minimum elong	4483 Nov 17 03:46	25°♍47'44	0°15'27	
	4478 Dec 06 12:22	0°♋		behind sun begin	4483 Nov 16 22:40	25°♍39'25		
	4479 Jan 16 00:02	0°♌		behind sun end	4483 Nov 17 08:52	25°♍56'04		
	4479 Feb 24 10:47	0°♍			4483 Nov 23 13:54	0°♈		
asc. node	4479 Mar 03 14:21	5°♈25'13		desc. node	4483 Dec 15 13:13	14°♈33'03		
	4479 Apr 05 09:26	0°♊		morning rise	4484 Jan 01 07:04	25°♈49'21		
	4479 May 16 17:22	0°♋			4484 Jan 07 10:30	0°♉		
	4479 Jun 28 21:09	0°♌			4484 Feb 19 14:01	0°♊		
evening set	4479 Jul 17 19:31	12°♌46'07			4484 Apr 01 04:17	0°♋		
	4479 Aug 12 20:22	0°♍			4484 May 11 13:57	0°♌		
					4484 Jun 20 11:09	0°♍		
conjunction	4479 Sep 05 15:54	15°♍29'26	1°07'45		4484 Jul 30 23:41	0°♊		
minimum elong	4479 Sep 05 16:08	15°♍29'48	1°07'45		4484 Sep 12 12:32	0°♋		
max. Earth dist.	4479 Sep 16 23:32	22°♍46'47	2.65413 AU	asc. node	4484 Oct 23 11:34	23°♍17'38		
	4479 Sep 28 05:57	0°♎			4484 Nov 08 15:02	0°♌		
morning rise	4479 Oct 21 19:40	15°♎00'26		retrograde	4484 Dec 08 14:43	5°♎44'56		

	4485 Jan 06 08:34	30° \mathbb{R} \mathfrak{S}			4490 Mar 09 13:33	0° Υ	
min. Earth dist.	4485 Jan 08 08:50	29° \mathfrak{S} 15'46	0.52988 AU		4490 Apr 16 11:43	0° \mathfrak{B}	
greatest brilliancy	4485 Jan 14 10:31	26° \mathfrak{S} 57'46	-1.9m				
opposition	4485 Jan 15 22:38	26° \mathfrak{S} 23'25	3°52'07	conjunction	4490 Apr 26 14:30	7° \mathfrak{B} 57'31	0°-32'-58
direct	4485 Feb 20 02:57	18° \mathfrak{S} 37'29		minimum elong	4490 Apr 26 17:31	8° \mathfrak{B} 03'27	0°32'57
	4485 Apr 09 03:15	0° \mathcal{Q}			4490 May 24 22:43	0° \mathbb{I}	
	4485 Jun 09 00:30	0° \mathfrak{M}		asc. node	4490 Jun 15 08:30	16° \mathbb{I} 17'47	
	4485 Jul 31 06:03	0° \mathfrak{A}		max. Earth dist.	4490 Jun 15 23:04	16° \mathbb{I} 45'12	2.39566 AU
	4485 Sep 18 11:09	0° \mathfrak{M}			4490 Jul 03 17:56	0° \mathfrak{S}	
desc. node	4485 Nov 01 12:13	28° \mathfrak{M} 10'37		morning rise	4490 Jul 05 09:07	1° \mathfrak{S} 12'06	
	4485 Nov 04 06:55	0° \mathfrak{X}			4490 Aug 14 13:14	0° \mathcal{Q}	
evening set	4485 Nov 08 10:52	2° \mathfrak{X} 44'36			4490 Sep 27 20:54	0° \mathfrak{M}	
max. Earth dist.	4485 Nov 26 22:40	15° \mathfrak{X} 05'09	2.56492 AU		4490 Nov 14 10:18	0° \mathfrak{A}	
	4485 Dec 18 18:29	0° \mathfrak{Z}			4491 Jan 06 19:41	0° \mathfrak{M}	
				retrograde	4491 Mar 26 16:50	25° \mathfrak{M} 10'06	
conjunction	4485 Dec 26 01:29	5° \mathfrak{Z} 04'11	0°-29'-54	opposition	4491 May 05 00:29	16° \mathfrak{M} 04'35	1°47'40
minimum elong	4485 Dec 26 00:23	5° \mathfrak{Z} 02'16	0°29'54	greatest brilliancy	4491 May 05 08:46	15° \mathfrak{M} 56'30	-1.3m
	4486 Jan 30 01:17	0° \approx		min. Earth dist.	4491 May 08 17:59	14° \mathfrak{M} 37'20	0.65569 AU
morning rise	4486 Feb 14 22:26	11° \approx 38'08		direct	4491 Jun 15 14:09	6° \mathfrak{M} 02'04	
	4486 Mar 11 12:11	0° \mathfrak{H}		desc. node	4491 Jun 24 08:27	6° \mathfrak{M} 30'02	
	4486 Apr 19 16:23	0° Υ			4491 Aug 29 01:38	0° \mathfrak{X}	
	4486 May 28 07:25	0° \mathfrak{B}			4491 Oct 18 09:36	0° \mathfrak{Z}	
	4486 Jul 06 06:41	0° \mathbb{I}			4491 Nov 30 18:24	0° \approx	
	4486 Aug 15 16:54	0° \mathfrak{S}			4492 Jan 09 20:05	0° \mathfrak{H}	
asc. node	4486 Sep 10 11:10	18° \mathfrak{S} 06'30			4492 Feb 17 06:55	0° Υ	
	4486 Sep 28 06:37	0° \mathcal{Q}			4492 Mar 26 08:39	0° \mathfrak{B}	
	4486 Nov 18 14:43	0° \mathfrak{M}		evening set	4492 Apr 30 05:05	27° \mathfrak{B} 03'19	
retrograde	4487 Jan 16 20:30	17° \mathfrak{M} 32'08		asc. node	4492 May 02 07:48	28° \mathfrak{B} 40'20	
min. Earth dist.	4487 Feb 21 23:18	9° \mathfrak{M} 09'35	0.63522 AU		4492 May 04 01:30	0° \mathbb{I}	
opposition	4487 Feb 25 23:02	7° \mathfrak{M} 34'11	4°41'23		4492 Jun 13 04:25	0° \mathfrak{S}	
greatest brilliancy	4487 Feb 25 01:39	7° \mathfrak{M} 55'30	-1.4m				
	4487 Mar 21 08:47	30° \mathfrak{R} \mathcal{Q}		conjunction	4492 Jul 02 15:59	14° \mathfrak{S} 04'42	0°38'01
direct	4487 Apr 05 16:39	28° \mathcal{Q} 28'57		minimum elong	4492 Jul 02 13:50	14° \mathfrak{S} 00'53	0°37'59
	4487 Apr 21 22:35	0° \mathfrak{M}			4492 Jul 25 06:06	0° \mathcal{Q}	
	4487 Jul 07 00:04	0° \mathfrak{A}		max. Earth dist.	4492 Aug 08 21:54	10° \mathcal{Q} 06'30	2.53103 AU
	4487 Aug 29 06:29	0° \mathfrak{M}		morning rise	4492 Aug 27 20:31	22° \mathcal{Q} 55'22	
desc. node	4487 Sep 19 10:58	12° \mathfrak{M} 54'49			4492 Sep 07 11:38	0° \mathfrak{M}	
	4487 Oct 16 08:54	0° \mathfrak{X}			4492 Oct 23 21:29	0° \mathfrak{A}	
	4487 Nov 30 00:57	0° \mathfrak{Z}			4492 Dec 11 16:52	0° \mathfrak{M}	
evening set	4487 Dec 22 01:26	15° \mathfrak{Z} 32'09			4493 Feb 02 15:09	0° \mathfrak{X}	
max. Earth dist.	4488 Jan 05 17:11	26° \mathfrak{Z} 08'36	2.44033 AU		4493 Apr 18 01:27	0° \mathfrak{Z}	
	4488 Jan 10 23:26	0° \approx		retrograde	4493 May 06 00:32	1° \mathfrak{Z} 48'55	
				desc. node	4493 May 11 07:59	1° \mathfrak{Z} 38'31	
conjunction	4488 Feb 15 10:28	26° \approx 37'11	-1°-4'-1		4493 May 23 01:24	30° \mathfrak{R} \mathfrak{X}	
minimum elong	4488 Feb 15 09:38	26° \approx 35'36	1°04'02	opposition	4493 Jun 11 23:23	23° \mathfrak{X} 49'41	-1°-18'-43
	4488 Feb 19 20:22	0° \mathfrak{H}		greatest brilliancy	4493 Jun 12 11:27	23° \mathfrak{X} 38'30	-1.7m
	4488 Mar 29 09:54	0° Υ		min. Earth dist.	4493 Jun 19 05:41	21° \mathfrak{X} 08'14	0.56908 AU
morning rise	4488 Apr 20 11:50	17° Υ 23'01		direct	4493 Jul 22 08:00	14° \mathfrak{X} 14'53	
	4488 May 06 12:23	0° \mathfrak{B}			4493 Sep 15 07:37	0° \mathfrak{Z}	
	4488 Jun 14 00:55	0° \mathbb{I}			4493 Nov 04 19:14	0° \approx	
	4488 Jul 23 20:37	0° \mathfrak{S}			4493 Dec 16 22:40	0° \mathfrak{H}	
asc. node	4488 Jul 28 09:14	3° \mathfrak{S} 19'12			4494 Jan 25 08:57	0° Υ	
	4488 Sep 03 21:25	0° \mathcal{Q}			4494 Mar 05 03:47	0° \mathfrak{B}	
	4488 Oct 19 08:22	0° \mathfrak{M}		asc. node	4494 Mar 20 05:55	11° \mathfrak{B} 35'01	
	4488 Dec 10 14:52	0° \mathfrak{A}			4494 Apr 13 13:27	0° \mathbb{I}	
retrograde	4489 Feb 19 10:30	22° \mathfrak{A} 02'04			4494 May 24 09:44	0° \mathfrak{S}	
opposition	4489 Mar 31 17:51	12° \mathfrak{A} 18'09	3°46'36	evening set	4494 Jun 29 03:09	25° \mathfrak{S} 10'21	
greatest brilliancy	4489 Mar 31 17:01	12° \mathfrak{A} 18'59	-1.2m		4494 Jul 06 03:26	0° \mathcal{Q}	
min. Earth dist.	4489 Mar 31 15:25	12° \mathfrak{A} 20'34	0.67859 AU		4494 Aug 19 19:18	0° \mathfrak{M}	
direct	4489 May 11 14:29	2° \mathfrak{A} 30'37					
	4489 Aug 03 10:23	0° \mathfrak{M}		conjunction	4494 Aug 20 17:29	0° \mathfrak{M} 36'30	1°07'02
desc. node	4489 Aug 06 09:18	1° \mathfrak{M} 32'41		minimum elong	4494 Aug 20 16:59	0° \mathfrak{M} 35'42	1°07'01
	4489 Sep 24 15:22	0° \mathfrak{X}		max. Earth dist.	4494 Sep 07 10:35	12° \mathfrak{M} 11'24	2.62990 AU
	4489 Nov 09 10:42	0° \mathfrak{Z}			4494 Oct 05 02:03	0° \mathfrak{A}	
	4489 Dec 21 13:22	0° \approx		morning rise	4494 Oct 07 15:47	1° \mathfrak{A} 38'35	
	4490 Jan 30 06:01	0° \mathfrak{H}			4494 Nov 21 13:17	0° \mathfrak{M}	
evening set	4490 Feb 17 12:02	14° \mathfrak{H} 12'16			4495 Jan 09 01:36	0° \mathfrak{X}	

	4495 Feb 28 08:19	0°☾			4500 Feb 05 06:22	0°☾		
desc. node	4495 Mar 29 06:31	16°☾15'04			4500 Apr 27 05:08	0°♈		
	4495 Apr 25 00:10	0°♊			4500 Jun 19 17:40	0°♊		
retrograde	4495 Jul 02 03:17	20°♊14'50			4500 Aug 09 01:00	0°♊		
opposition	4495 Aug 03 18:11	14°♊09'37	-5°-30'-30		4500 Sep 26 12:49	0°♊		
greatest brilliancy	4495 Aug 05 20:16	13°♊29'41	-2.4m	evening set	4500 Oct 25 11:53	18°♊28'51		
min. Earth dist.	4495 Aug 11 19:41	11°♊36'34	0.43840 AU		4500 Nov 12 03:56	0°♊		
direct	4495 Sep 08 04:38	6°♊48'05		max. Earth dist.	4500 Nov 16 20:19	3°♊05'09	2.60333 AU	
	4495 Nov 12 20:02	0°♋		desc. node	4500 Nov 19 02:48	4°♊35'14		
	4495 Dec 28 15:22	0°♋						
asc. node	4496 Feb 05 05:21	27°♋39'58		conjunction	4500 Dec 10 16:40	19°♊02'02	0°-12'00	
	4496 Feb 08 10:30	0°♌		minimum elong	4500 Dec 10 16:14	19°♊01'18	0°12'00	
	4496 Mar 20 22:11	0°♌		behind sun begin	4500 Dec 10 02:50	18°♊38'40		
	4496 May 02 10:16	0°♌		behind sun end	4500 Dec 11 05:37	19°♊23'58		
	4496 Jun 15 11:45	0°♌			4500 Dec 26 18:05	0°♌		
	4496 Jul 31 02:18	0°♍		morning rise	4501 Jan 27 13:32	22°♌17'23		
evening set	4496 Aug 11 22:00	7°♍38'30			4501 Feb 07 07:43	0°♍		
	4496 Sep 15 19:35	0°♍			4501 Mar 20 03:30	0°♋		
					4501 Apr 28 16:47	0°♋		
conjunction	4496 Sep 27 21:54	7°♍42'18	1°00'14		4501 Jun 06 16:05	0°♌		
minimum elong	4496 Sep 27 22:49	7°♍43'45	1°00'14		4501 Jul 16 00:04	0°♌		
max. Earth dist.	4496 Sep 30 04:44	9°♍09'31	2.67544 AU		4501 Aug 26 00:51	0°♌		
	4496 Nov 01 23:34	0°♍		asc. node	4501 Sep 28 03:00	22°♌21'42		
morning rise	4496 Nov 11 10:00	6°♍00'07			4501 Oct 10 08:06	0°♌		
	4496 Dec 19 00:09	0°♎			4501 Dec 13 14:56	0°♍		
	4497 Feb 03 14:33	0°☾		retrograde	4502 Jan 03 12:33	2°♍46'26		
desc. node	4497 Feb 13 05:25	6°☾13'43			4502 Jan 23 08:06	30°♌♈		
	4497 Mar 21 20:26	0°♍		min. Earth dist.	4502 Feb 06 16:28	25°♌03'23	0.60086 AU	
	4497 May 07 05:21	0°♋		greatest brilliancy	4502 Feb 10 22:33	23°♌22'39	-1.6m	
	4497 Jun 24 07:41	0°♋		opposition	4502 Feb 12 03:59	22°♌53'30	4°39'28	
	4497 Aug 24 21:41	0°♌		direct	4502 Mar 21 16:48	14°♌13'31		
retrograde	4497 Sep 19 07:04	4°♌04'27			4502 May 20 01:41	0°♍		
	4497 Oct 15 11:08	30°♌♋			4502 Jul 17 23:48	0°♍		
min. Earth dist.	4497 Oct 17 07:52	29°♋30'03	0.37219 AU		4502 Sep 07 02:58	0°♍		
opposition	4497 Oct 19 22:55	28°♋47'27	-4°-23'-39	desc. node	4502 Oct 07 01:51	18°♌42'08		
greatest brilliancy	4497 Oct 19 14:35	28°♋53'05	-2.9m		4502 Oct 24 13:59	0°♎		
direct	4497 Nov 18 06:53	23°♋52'43		evening set	4502 Dec 04 21:16	27°♎45'21		
	4497 Dec 20 05:57	0°♌			4502 Dec 08 03:02	0°☾		
asc. node	4497 Dec 23 05:19	1°♌05'02		max. Earth dist.	4502 Dec 19 06:48	7°☾48'15	2.49243 AU	
	4498 Feb 17 21:01	0°♌			4503 Jan 19 03:58	0°♍		
	4498 Apr 07 13:36	0°☾						
	4498 May 24 23:56	0°♌		conjunction	4503 Jan 25 08:24	4°♍32'48	0°-54'-46	
	4498 Jul 11 14:29	0°♍		minimum elong	4503 Jan 25 06:46	4°♍29'46	0°54'46	
	4498 Aug 28 09:45	0°♍			4503 Feb 28 05:39	0°♋		
evening set	4498 Sep 18 20:29	13°♍30'14		morning rise	4503 Mar 24 19:17	18°♋55'54		
	4498 Oct 14 21:00	0°♍			4503 Apr 08 00:08	0°♋		
max. Earth dist.	4498 Oct 23 05:41	5°♍20'13	2.66614 AU		4503 May 16 06:23	0°♌		
					4503 Jun 23 21:29	0°♌		
conjunction	4498 Nov 02 22:51	12°♍12'34	0°30'55		4503 Aug 02 19:55	0°☾		
minimum elong	4498 Nov 02 23:43	12°♍13'57	0°30'56	asc. node	4503 Aug 16 02:53	9°☾38'51		
	4498 Nov 30 09:35	0°♎			4503 Sep 14 04:00	0°♌		
morning rise	4498 Dec 17 06:32	11°♎05'30			4503 Oct 30 17:51	0°♍		
desc. node	4499 Jan 01 04:01	20°♎59'43			4503 Dec 28 06:48	0°♍		
	4499 Jan 14 13:47	0°☾		retrograde	4504 Feb 08 04:13	9°♍13'44		
	4499 Feb 27 06:33	0°♍			4504 Mar 17 22:04	30°♌♋		
	4499 Apr 10 14:33	0°♋		min. Earth dist.	4504 Mar 17 22:28	29°♍59'36	0.66952 AU	
	4499 May 21 21:17	0°♋		opposition	4504 Mar 19 13:17	29°♍20'50	4°16'15	
	4499 Jul 01 20:19	0°♌		greatest brilliancy	4504 Mar 19 05:06	29°♍29'00	-1.3m	
	4499 Aug 13 03:05	0°♌		direct	4504 Apr 28 17:45	19°♍46'27		
	4499 Oct 01 01:08	0°☾			4504 Jun 14 02:26	0°♍		
asc. node	4499 Nov 10 04:10	14°☾29'30			4504 Aug 14 18:42	0°♍		
retrograde	4499 Nov 21 07:08	15°☾22'58		desc. node	4504 Aug 24 00:59	5°♍16'08		
min. Earth dist.	4499 Dec 19 19:56	9°☾45'55	0.47686 AU		4504 Oct 03 18:33	0°♎		
greatest brilliancy	4499 Dec 26 22:09	7°☾13'18	-2.2m		4504 Nov 17 23:42	0°☾		
opposition	4499 Dec 28 03:47	6°☾46'37	2°37'41		4504 Dec 29 23:16	0°♍		
	4500 Jan 24 20:12	30°♌♋		evening set	4505 Jan 24 07:55	18°♍59'52		
direct	4500 Jan 30 11:47	29°♌47'13			4505 Feb 07 16:41	0°♋		

max. Earth dist.	4505 Mar 12 17:08	25° 46 '24	2.37073 AU	max. Earth dist.	4509 Aug 29 01:00	0° 51 '15	2.59714 AU
	4505 Mar 18 01:47	0° 56 '00		morning rise	4509 Sep 23 18:13	17° 39 '20	
					4509 Oct 12 23:37	0° 56 '00	
conjunction	4505 Mar 28 21:39	8° 33 '23	0°-56'00		4509 Nov 29 18:52	0° 56 '00	
minimum elong	4505 Mar 29 00:31	8° 39 '03	0°56'00		4510 Jan 18 09:57	0° 56 '00	
	4505 Apr 25 00:46	0° 56 '00			4510 Mar 12 23:35	0° 56 '00	
	4505 Jun 02 11:24	0° 56 '00		desc. node	4510 Apr 15 21:12	16° 58 '48	
morning rise	4505 Jun 08 17:04	4° 47 '15		retrograde	4510 Jun 08 03:52	29° 20 '02	
asc. node	4505 Jul 03 00:38	23° 10 '19		opposition	4510 Jul 12 15:54	22° 23 '57	-3°-50'-44
	4505 Jul 12 05:30	0° 56 '00		greatest brilliancy	4510 Jul 14 06:57	21° 50 '12	-2.1m
	4505 Aug 23 00:34	0° 56 '00		min. Earth dist.	4510 Jul 21 03:10	19° 28 '54	0.49128 AU
	4505 Oct 06 13:43	0° 56 '00		direct	4510 Aug 19 15:39	13° 52 '05	
	4505 Nov 24 03:38	0° 56 '00			4510 Oct 12 10:19	0° 56 '00	
	4506 Jan 21 16:44	0° 56 '00			4510 Nov 29 23:59	0° 56 '00	
retrograde	4506 Mar 13 14:14	12° 20 '09			4511 Jan 10 14:11	0° 56 '00	
opposition	4506 Apr 22 10:44	2° 56 '53	2°40'53		4511 Feb 19 14:41	0° 56 '00	
greatest brilliancy	4506 Apr 22 17:40	2° 50 '04	-1.2m	asc. node	4511 Feb 22 22:39	2° 30 '01	
min. Earth dist.	4506 Apr 24 16:37	2° 03 '50	0.67268 AU		4511 Mar 31 22:59	0° 56 '00	
	4506 Apr 30 00:33	30° 41 '34			4511 May 12 14:33	0° 56 '00	
direct	4506 Jun 02 22:16	22° 56 '36			4511 Jun 25 00:07	0° 56 '00	
	4506 Jul 09 23:47	0° 56 '00		evening set	4511 Jul 28 15:51	22° 27 '56	
desc. node	4506 Jul 11 23:32	0° 56 '00			4511 Aug 09 03:25	0° 56 '00	
	4506 Sep 10 10:55	0° 56 '00					
	4506 Oct 28 05:17	0° 56 '00		conjunction	4511 Sep 15 07:48	24° 03 '24	1°06'06
	4506 Dec 09 21:41	0° 56 '00		minimum elong	4511 Sep 15 08:21	24° 04 '16	1°06'05
	4507 Jan 18 17:50	0° 56 '00		max. Earth dist.	4511 Sep 23 08:47	29° 12 '18	2.66393 AU
	4507 Feb 26 02:02	0° 56 '00			4511 Sep 24 14:39	0° 56 '00	
greatest brilliancy	4507 Mar 15 12:00	13° 46 '31	1.2m	morning rise	4511 Oct 30 18:09	22° 59 '53	
evening set	4507 Apr 03 21:28	29° 05 '44			4511 Nov 10 19:19	0° 56 '00	
	4507 Apr 05 01:02	0° 56 '00			4511 Dec 28 05:59	0° 56 '00	
	4507 May 13 14:15	0° 56 '00			4512 Feb 13 20:19	0° 56 '00	
asc. node	4507 May 20 23:33	5° 38 '37		desc. node	4512 Mar 02 19:50	11° 15 '35	
					4512 Apr 02 02:24	0° 56 '00	
conjunction	4507 Jun 10 16:55	21° 15 '07	0°13'54		4512 May 22 20:23	0° 56 '00	
minimum elong	4507 Jun 10 15:46	21° 12 '58	0°13'52		4512 Jul 29 23:34	0° 56 '00	
behind sun begin	4507 Jun 10 02:04	20° 47 '29		retrograde	4512 Aug 19 03:11	2° 26 '24	
behind sun end	4507 Jun 11 05:28	21° 38 '27			4512 Sep 08 03:26	30° 41 '34	
	4507 Jun 22 12:49	0° 56 '00		opposition	4512 Sep 18 03:16	27° 28 '37	-6°-26'-23
max. Earth dist.	4507 Jul 26 15:13	24° 32 '04	2.47997 AU	greatest brilliancy	4512 Sep 19 04:18	27° 11 '47	-2.8m
	4507 Aug 03 10:20	0° 56 '00		min. Earth dist.	4512 Sep 21 06:01	26° 38 '22	0.37695 AU
morning rise	4507 Aug 11 00:12	5° 15 '40		direct	4512 Oct 18 20:04	22° 12 '30	
	4507 Sep 16 14:28	0° 56 '00			4512 Nov 23 09:20	0° 56 '00	
	4507 Nov 02 06:14	0° 56 '00		asc. node	4513 Jan 09 20:40	25° 03 '43	
	4507 Dec 22 03:29	0° 56 '00			4513 Jan 17 19:50	0° 56 '00	
	4508 Feb 17 12:12	0° 56 '00			4513 Mar 04 19:16	0° 56 '00	
retrograde	4508 Apr 19 18:10	16° 57 '10			4513 Apr 18 19:20	0° 56 '00	
opposition	4508 May 27 20:06	8° 27 '30	0°02'34		4513 Jun 03 10:44	0° 56 '00	
greatest brilliancy	4507 Oct 23 12:44	23° 53 '13	-3.7m		4513 Jul 20 01:33	0° 56 '00	
desc. node	4508 May 28 22:16	8° 02 '35		evening set	4513 Sep 05 12:12	0° 56 '00	
min. Earth dist.	4508 Jun 02 19:14	6° 11 '22	0.61031 AU		4513 Sep 05 08:06	0° 56 '00	
	4508 Jun 23 05:22	30° 41 '34		max. Earth dist.	4513 Oct 15 04:50	25° 16 '33	2.67626 AU
direct	4508 Jul 07 23:15	28° 34 '04					
	4508 Jul 23 05:50	0° 56 '00		conjunction	4513 Oct 21 00:02	28° 58 '09	0°44'21
	4508 Oct 01 05:37	0° 56 '00		minimum elong	4513 Oct 21 01:05	28° 59 '49	0°44'20
	4508 Nov 16 05:07	0° 56 '00			4513 Oct 22 14:51	0° 56 '00	
	4508 Dec 27 04:02	0° 56 '00		morning rise	4513 Dec 04 00:50	27° 15 '07	
	4509 Feb 04 01:12	0° 56 '00			4513 Dec 08 06:26	0° 56 '00	
	4509 Mar 14 10:34	0° 56 '00		desc. node	4514 Jan 18 18:36	27° 16 '20	
asc. node	4509 Apr 06 23:48	18° 12 '25			4514 Jan 22 21:00	0° 56 '00	
	4509 Apr 22 11:14	0° 56 '00			4514 Mar 08 07:47	0° 56 '00	
	4509 Jun 01 22:34	0° 56 '00			4514 Apr 20 17:11	0° 56 '00	
evening set	4509 Jun 09 01:09	5° 07 '57			4514 Jun 02 09:42	0° 56 '00	
	4509 Jul 14 07:58	0° 56 '00			4514 Jul 15 10:49	0° 56 '00	
					4514 Aug 31 12:41	0° 56 '00	
conjunction	4509 Aug 04 07:27	14° 20 '05	1°00'58	retrograde	4514 Nov 01 02:31	21° 08 '41	
minimum elong	4509 Aug 04 06:07	14° 17 '50	1°00'57	asc. node	4514 Nov 27 20:56	16° 19 '29	
	4509 Aug 27 17:59	0° 56 '00		min. Earth dist.	4514 Nov 27 21:24	16° 19 '07	0.42424 AU

opposition	4514 Dec 05 18:30	13°II44'27	0°30'17	max. Earth dist.	4520 Jan 21 05:06	10°≈20'26	2.41196 AU
greatest brilliancy	4514 Dec 05 12:14	13°II49'36	-2.6m		4520 Feb 16 02:44	0°✕	
direct	4515 Jan 06 03:54	7°II40'25					
	4515 Mar 17 02:02	0°☿		conjunction	4520 Mar 01 07:55	10°✕59'25	-1°-5'-1
	4515 May 10 03:57	0°♂		minimum elong	4520 Mar 01 08:14	11°✕00'01	1°05'02
	4515 Jun 29 09:54	0°♊			4520 Mar 25 14:52	0°♎	
	4515 Aug 17 11:14	0°♋			4520 May 02 15:45	0°♌	
	4515 Oct 04 10:56	0°♍		morning rise	4520 May 08 19:54	4°♌51'22	
evening set	4515 Oct 12 02:09	4°♍51'00			4520 Jun 10 02:45	0°♊	
max. Earth dist.	4515 Nov 07 20:36	22°♍04'23	2.63401 AU	asc. node	4520 Jul 19 17:58	29°♊55'06	
	4515 Nov 19 23:45	0°♊			4520 Jul 19 20:38	0°☿	
					4520 Aug 30 17:13	0°♂	
conjunction	4515 Nov 26 11:24	4°♊16'20	0°05'42		4520 Oct 14 16:30	0°♊	
minimum elong	4515 Nov 26 11:35	4°♊16'37	0°05'43		4520 Dec 04 01:11	0°♋	
behind sun begin	4515 Nov 25 17:31	3°♊46'49		retrograde	4521 Feb 28 02:00	29°♋45'22	
behind sun end	4515 Nov 27 05:39	4°♊46'27		opposition	4521 Apr 09 06:41	20°♋07'55	3°24'54
desc. node	4515 Dec 06 17:59	11°♊05'17		greatest brilliancy	4521 Apr 09 09:16	20°♋05'21	-1.2m
	4516 Jan 03 17:59	0°♋		min. Earth dist.	4521 Apr 10 00:34	19°♋50'10	0.67934 AU
morning rise	4516 Jan 11 09:23	5°♋14'55		direct	4521 May 20 09:59	10°♋14'35	
	4516 Feb 15 16:20	0°≈			4521 Jul 27 09:55	0°♍	
	4516 Mar 27 23:25	0°✕		desc. node	4521 Jul 28 13:54	0°♍33'34	
	4516 May 07 00:57	0°♎			4521 Sep 19 22:29	0°♊	
	4516 Jun 15 12:38	0°♌			4521 Nov 05 08:12	0°♋	
	4516 Jul 25 11:39	0°♍			4521 Dec 17 15:36	0°≈	
	4516 Sep 05 17:11	0°☿			4522 Jan 26 09:34	0°✕	
asc. node	4516 Oct 14 19:53	24°☿23'42		evening set	4522 Mar 05 23:53	0°♎12'48	
	4516 Oct 25 07:14	0°♂			4522 Mar 05 17:24	0°♎	
retrograde	4516 Dec 19 02:24	16°♂25'35			4522 Apr 12 15:38	0°♌	
min. Earth dist.	4517 Jan 20 02:30	9°♂28'21	0.55738 AU				
opposition	4517 Jan 26 23:39	6°♂48'44	4°17'31	conjunction	4522 May 14 04:00	24°♌38'23	0°-16'-3
greatest brilliancy	4517 Jan 25 12:28	7°♂22'52	-1.8m	minimum elong	4522 May 14 05:35	24°♌41'26	0°16'04
	4517 Feb 17 23:59	30°♌☿			4522 May 21 02:50	0°♍	
direct	4517 Mar 04 01:57	28°☿41'08		asc. node	4522 Jun 06 17:15	12°♍39'44	
	4517 Mar 18 21:14	0°♂			4522 Jun 29 22:24	0°☿	
	4517 Jun 02 20:25	0°♊		max. Earth dist.	4522 Jul 05 09:53	4°☿01'26	2.42500 AU
	4517 Jul 26 18:52	0°♋		morning rise	4522 Jul 20 05:08	14°☿45'39	
	4517 Sep 14 14:10	0°♍			4522 Aug 10 17:07	0°♂	
desc. node	4517 Oct 23 17:02	24°♍49'32			4522 Sep 23 21:41	0°♊	
	4517 Oct 31 15:20	0°♊			4522 Nov 09 23:48	0°♋	
evening set	4517 Nov 18 07:27	11°♊42'39			4522 Dec 31 15:21	0°♍	
max. Earth dist.	4517 Dec 04 22:46	22°♊58'27	2.54083 AU		4523 Mar 11 21:35	0°♊	
	4517 Dec 15 03:48	0°♋		retrograde	4523 Apr 05 02:49	3°♊11'53	
					4523 Apr 27 15:37	30°♌♍	
conjunction	4518 Jan 06 00:37	15°♋21'10	0°-39'-46	opposition	4523 May 14 01:31	24°♍17'48	1°11'58
minimum elong	4518 Jan 05 23:11	15°♋18'37	0°39'46	greatest brilliancy	4523 May 14 08:35	24°♍10'58	-1.4m
	4518 Jan 26 08:50	0°≈		min. Earth dist.	4523 May 18 14:38	22°♍32'11	0.64225 AU
morning rise	4518 Feb 28 03:49	24°≈18'42		desc. node	4523 Jun 15 12:59	14°♍47'47	
	4518 Mar 07 16:25	0°✕		direct	4523 Jun 24 13:38	14°♍16'15	
	4518 Apr 15 16:53	0°♎			4523 Aug 20 21:31	0°♊	
	4518 May 24 04:02	0°♌			4523 Oct 13 05:38	0°♋	
	4518 Jul 01 23:10	0°♍			4523 Nov 26 07:45	0°≈	
	4518 Aug 11 03:09	0°☿			4524 Jan 05 15:39	0°✕	
asc. node	4518 Sep 01 18:03	15°☿26'07			4524 Feb 13 05:28	0°♎	
	4518 Sep 23 01:21	0°♂			4524 Mar 22 09:03	0°♌	
	4518 Nov 10 19:43	0°♊		asc. node	4524 Apr 23 15:36	25°♌01'52	
retrograde	4519 Jan 25 18:42	25°♊57'32			4524 Apr 30 03:40	0°♍	
min. Earth dist.	4519 Mar 03 21:20	17°♊15'00	0.65037 AU	evening set	4524 May 16 02:10	12°♍02'46	
greatest brilliancy	4519 Mar 06 07:59	16°♊16'25	-1.3m		4524 Jun 09 08:35	0°☿	
opposition	4519 Mar 07 00:31	15°♊59'53	4°35'43				
direct	4519 Apr 15 07:36	6°♊42'54		conjunction	4524 Jul 15 20:10	26°☿03'37	0°48'29
	4519 Jun 30 09:38	0°♋		minimum elong	4524 Jul 15 18:07	26°☿00'02	0°48'28
	4519 Aug 24 17:34	0°♍			4524 Jul 21 11:50	0°♂	
desc. node	4519 Sep 10 15:23	10°♍05'44		max. Earth dist.	4524 Aug 17 07:46	18°♂21'36	2.55667 AU
	4519 Oct 12 10:24	0°♊			4524 Sep 03 17:49	0°♊	
	4519 Nov 26 07:18	0°♋		morning rise	4524 Sep 07 16:29	2°♊36'30	
evening set	4520 Jan 03 06:29	27°♋03'29			4524 Oct 20 00:31	0°♋	
	4520 Jan 07 06:42	0°≈			4524 Dec 07 08:27	0°♍	

	4525 Jan 27 16:59	0°♊			4530 Feb 06 19:35	0°♈		
	4525 Mar 29 11:08	0°♈			4530 Apr 01 02:25	0°♈		
desc. node	4525 May 02 11:41	10°♈08'46			4530 May 20 02:19	0°♈		
retrograde	4525 May 17 19:56	11°♈29'03			4530 Jul 07 10:50	0°♈		
opposition	4525 Jun 23 00:14	3°♈49'52	-2°-11'-19		4530 Aug 24 15:09	0°♈		
greatest brilliancy	4525 Jun 23 21:42	3°♈30'21	-1.8m	evening set	4530 Sep 27 22:35	21°♈33'06		
min. Earth dist.	4525 Jun 30 20:13	0°♈59'03	0.54310 AU		4530 Oct 11 06:21	0°♈		
	4525 Jul 03 15:46	30°♈♊		max. Earth dist.	4530 Oct 29 13:04	11°♈40'58	2.65710 AU	
direct	4525 Aug 01 17:07	24°♈31'38						
	4525 Aug 31 19:33	0°♈		conjunction	4530 Nov 12 00:01	20°♈21'59	0°22'08	
	4525 Oct 29 04:31	0°♈		minimum elong	4530 Nov 12 00:41	20°♈23'04	0°22'08	
	4525 Dec 11 15:45	0°♈			4530 Nov 26 19:03	0°♈		
	4526 Jan 20 15:05	0°♈		desc. node	4530 Dec 23 08:51	17°♈34'31		
	4526 Feb 28 17:35	0°♈		morning rise	4530 Dec 26 16:58	19°♈48'32		
asc. node	4526 Mar 11 15:09	8°♈19'25			4531 Jan 10 19:42	0°♈		
	4526 Apr 09 08:58	0°♈			4531 Feb 23 05:49	0°♈		
	4526 May 20 10:13	0°♈			4531 Apr 06 04:07	0°♈		
	4526 Jul 02 07:53	0°♈			4531 May 16 22:50	0°♈		
evening set	4526 Jul 10 23:56	5°♈54'06			4531 Jun 26 05:41	0°♈		
	4526 Aug 16 02:38	0°♈			4531 Aug 06 07:54	0°♈		
					4531 Sep 20 06:52	0°♈		
conjunction	4526 Aug 30 23:22	9°♈43'26	1°08'01	asc. node	4531 Nov 01 12:31	21°♈24'57		
minimum elong	4526 Aug 30 23:19	9°♈43'21	1°08'01	retrograde	4531 Dec 03 00:47	27°♈47'37		
max. Earth dist.	4526 Sep 14 02:24	18°♈52'36	2.64435 AU	min. Earth dist.	4532 Jan 01 17:49	21°♈41'53	0.50650 AU	
	4526 Oct 01 09:55	0°♈		greatest brilliancy	4532 Jan 08 07:08	19°♈16'06	-2.1m	
morning rise	4526 Oct 16 20:12	9°♈50'10		opposition	4532 Jan 09 18:11	18°♈43'26	3°26'18	
	4526 Nov 17 17:46	0°♈		direct	4532 Feb 13 04:02	11°♈17'00		
	4527 Jan 04 18:47	0°♈			4532 Apr 17 13:45	0°♈		
	4527 Feb 22 20:10	0°♈			4532 Jun 13 12:25	0°♈		
desc. node	4527 Mar 20 10:53	15°♈09'41			4532 Aug 03 20:28	0°♈		
	4527 Apr 15 15:38	0°♈			4532 Sep 21 18:21	0°♈		
	4527 Jun 21 01:44	0°♈		evening set	4532 Nov 02 22:41	26°♈59'09		
retrograde	4527 Jul 19 06:24	4°♈25'53			4532 Nov 07 13:07	0°♈		
	4527 Aug 15 20:37	30°♈♈		desc. node	4532 Nov 09 07:32	1°♈09'44		
opposition	4527 Aug 19 19:44	28°♈50'16	-6°-14'-55	max. Earth dist.	4532 Nov 23 02:19	10°♈17'58	2.58304 AU	
greatest brilliancy	4527 Aug 21 20:14	28°♈14'03	-2.6m					
min. Earth dist.	4527 Aug 26 21:23	26°♈44'40	0.41165 AU	conjunction	4532 Dec 19 19:58	28°♈25'28	0°-22'-24	
direct	4527 Sep 22 11:30	22°♈16'55		minimum elong	4532 Dec 19 19:08	28°♈24'03	0°22'23	
	4527 Oct 27 12:09	0°♈			4532 Dec 22 02:51	0°♈		
	4527 Dec 20 11:07	0°♈			4533 Feb 02 13:44	0°♈		
asc. node	4528 Jan 27 14:03	26°♈00'18		morning rise	4533 Feb 07 04:56	3°♈21'35		
	4528 Feb 02 06:38	0°♈			4533 Mar 15 05:14	0°♈		
	4528 Mar 15 18:34	0°♈			4533 Apr 23 13:54	0°♈		
	4528 Apr 27 22:11	0°♈			4533 Jun 01 08:25	0°♈		
	4528 Jun 11 09:57	0°♈			4533 Jul 10 10:29	0°♈		
	4528 Jul 27 07:21	0°♈			4533 Aug 20 00:54	0°♈		
evening set	4528 Aug 21 16:24	16°♈17'40		asc. node	4533 Sep 18 12:24	20°♈27'44		
	4528 Sep 12 04:16	0°♈			4533 Oct 03 02:10	0°♈		
max. Earth dist.	4528 Oct 06 08:10	15°♈21'33	2.67812 AU		4533 Nov 26 03:41	0°♈		
				retrograde	4534 Jan 11 20:33	11°♈49'13		
conjunction	4528 Oct 07 00:01	15°♈46'43	0°55'14	min. Earth dist.	4534 Feb 16 02:43	3°♈43'22	0.62095 AU	
minimum elong	4528 Oct 07 01:03	15°♈48'21	0°55'13	opposition	4534 Feb 20 18:11	1°♈52'32	4°42'53	
	4528 Oct 29 08:45	0°♈		greatest brilliancy	4534 Feb 19 17:06	2°♈17'32	-1.5m	
morning rise	4528 Nov 20 04:59	13°♈56'08			4534 Feb 25 12:59	30°♈♈		
	4528 Dec 15 05:42	0°♈		direct	4534 Mar 30 22:59	22°♈57'49		
	4529 Jan 30 10:25	0°♈			4534 May 07 04:25	0°♈		
desc. node	4529 Feb 04 10:14	3°♈16'13			4534 Jul 11 14:13	0°♈		
	4529 Mar 16 22:10	0°♈			4534 Sep 01 22:00	0°♈		
	4529 Apr 30 22:15	0°♈		desc. node	4534 Sep 27 06:14	15°♈36'15		
	4529 Jun 15 04:46	0°♈			4534 Oct 19 18:58	0°♈		
	4529 Aug 02 19:06	0°♈			4534 Dec 03 10:59	0°♈		
retrograde	4529 Oct 06 21:59	22°♈23'26		evening set	4534 Dec 14 22:54	8°♈02'11		
min. Earth dist.	4529 Nov 02 12:15	17°♈57'57	0.38382 AU	max. Earth dist.	4534 Dec 28 22:43	17°♈59'35	2.46384 AU	
opposition	4529 Nov 07 18:45	16°♈27'20	-2°-33'-18		4535 Jan 14 11:45	0°♈		
greatest brilliancy	4529 Nov 07 04:58	16°♈37'15	-2.8m					
direct	4529 Dec 07 13:40	11°♈16'19		conjunction	4535 Feb 06 10:04	17°♈02'48	-1°-1'-2	
asc. node	4529 Dec 14 12:18	11°♈35'17		minimum elong	4535 Feb 06 08:44	17°♈00'17	1°01'02	

	4535 Feb 23 11:28	0° H		opposition	4540 Jun 05 19:50	17° J 30'04	0°-42'-57
	4535 Apr 03 03:36	0° Y		greatest brilliancy	4540 Jun 06 01:58	17° J 24'18	-1.6m
morning rise	4535 Apr 09 11:07	4° Y 57'10		min. Earth dist.	4540 Jun 12 12:41	14° J 58'56	0.58853 AU
	4535 May 11 07:38	0° B		direct	4540 Jul 16 13:58	7° J 45'09	
greatest brilliancy	4535 May 14 21:14	2° B 47'59	1.2m		4540 Sep 22 17:07	0° Z	
	4535 Jun 18 20:35	0° II			4540 Nov 09 20:57	0° \approx	
	4535 Jul 28 16:16	0° S			4540 Dec 21 11:06	0° H	
asc. node	4535 Aug 06 10:25	6° S 24'15			4541 Jan 29 15:19	0° Y	
	4535 Sep 08 18:02	0° Q			4541 Mar 09 05:21	0° B	
	4535 Oct 24 12:13	0° M		asc. node	4541 Mar 28 07:04	14° B 42'11	
	4535 Dec 17 10:46	0° A			4541 Apr 17 09:54	0° II	
retrograde	4536 Feb 15 19:33	17° A 04'49			4541 May 28 00:58	0° S	
min. Earth dist.	4536 Mar 26 09:21	7° A 34'55	0.67577 AU	evening set	4541 Jun 21 07:56	17° S 18'33	
opposition	4536 Mar 27 03:45	7° A 16'33	4°00'04		4541 Jul 09 13:34	0° Q	
greatest brilliancy	4536 Mar 26 23:52	7° A 20'26	-1.2m				
	4536 Apr 17 05:16	30° R M		conjunction	4541 Aug 14 10:19	24° Q 16'34	1°05'10
direct	4536 May 06 17:08	27° M 34'24		minimum elong	4541 Aug 14 09:28	24° Q 15'10	1°05'10
	4536 May 27 16:40	0° A			4541 Aug 23 01:33	0° M	
	4536 Aug 08 05:04	0° M		max. Earth dist.	4541 Sep 04 02:47	7° M 55'17	2.61632 AU
desc. node	4536 Aug 14 04:50	3° M 15'38		morning rise	4541 Oct 02 08:58	26° M 13'14	
	4536 Sep 28 11:11	0° J			4541 Oct 08 06:36	0° A	
	4536 Nov 13 01:46	0° Z			4541 Nov 24 20:19	0° M	
	4536 Dec 25 04:30	0° \approx			4542 Jan 12 18:22	0° J	
evening set	4537 Feb 02 22:19	0° H			4542 Mar 05 04:17	0° Z	
	4537 Feb 07 02:12	3° H 12'59		desc. node	4542 Apr 06 01:49	16° Z 58'30	
	4537 Mar 13 06:57	0° Y			4542 May 04 16:07	0° \approx	
				retrograde	4542 Jun 21 16:08	11° \approx 08'58	
conjunction	4537 Apr 14 11:22	25° Y 27'46	0°-44'-25	opposition	4542 Jul 25 04:09	4° \approx 40'00	-4°-48'-37
minimum elong	4537 Apr 14 14:49	25° Y 34'34	0°44'24	greatest brilliancy	4542 Jul 27 03:02	4° \approx 01'01	-2.3m
	4537 Apr 20 05:17	0° B		min. Earth dist.	4542 Aug 02 14:18	1° \approx 53'06	0.46180 AU
max. Earth dist.	4537 May 22 19:40	25° B 30'28	2.37578 AU		4542 Aug 08 20:55	30° R Z	
	4537 May 28 15:15	0° II		direct	4542 Aug 30 20:00	26° Z 43'51	
asc. node	4537 Jun 23 09:17	19° II 35'28			4542 Sep 22 02:32	0° \approx	
morning rise	4537 Jun 24 18:29	20° II 37'43			4542 Nov 21 03:45	0° H	
	4537 Jul 07 08:49	0° S			4543 Jan 03 13:50	0° Y	
	4537 Aug 18 02:22	0° Q		asc. node	4543 Feb 13 06:08	29° Y 52'16	
	4537 Oct 01 10:16	0° M			4543 Feb 13 10:19	0° B	
	4537 Nov 18 06:23	0° A			4543 Mar 26 07:14	0° II	
	4538 Jan 12 03:16	0° M			4543 May 07 08:11	0° S	
retrograde	4538 Mar 21 14:14	20° M 07'11			4543 Jun 20 00:56	0° Q	
opposition	4538 Apr 30 04:06	10° M 53'26	2°10'50		4543 Aug 04 09:19	0° M	
greatest brilliancy	4538 Apr 30 12:10	10° M 45'32	-1.3m	evening set	4543 Aug 07 02:25	1° M 45'55	
min. Earth dist.	4538 May 03 06:00	9° M 41'01	0.66450 AU		4543 Sep 19 23:06	0° A	
direct	4538 Jun 10 17:17	0° M 51'11					
desc. node	4538 Jul 02 03:41	3° M 27'07		conjunction	4543 Sep 23 18:06	2° A 25'12	1°03'07
	4538 Sep 03 10:24	0° J		minimum elong	4543 Sep 23 18:53	2° A 26'28	1°03'06
	4538 Oct 22 14:33	0° Z		max. Earth dist.	4543 Sep 28 14:36	5° A 30'52	2.67143 AU
	4538 Dec 04 17:24	0° \approx			4543 Nov 06 03:06	0° M	
	4539 Jan 13 17:26	0° H		morning rise	4543 Nov 07 14:20	0° M 55'55	
	4539 Feb 21 03:32	0° Y			4543 Dec 23 07:51	0° J	
	4539 Mar 31 03:53	0° B			4544 Feb 08 08:01	0° Z	
evening set	4539 Apr 20 01:29	15° B 33'59		desc. node	4544 Feb 22 00:29	8° Z 44'40	
	4539 May 08 18:17	0° II			4544 Mar 26 08:41	0° \approx	
asc. node	4539 May 11 09:02	1° II 59'58			4544 May 13 05:23	0° H	
	4539 Jun 17 18:07	0° S			4544 Jul 04 05:06	0° Y	
				retrograde	4544 Sep 06 08:55	20° Y 24'52	
conjunction	4539 Jun 24 15:36	5° S 02'15	0°28'34	opposition	4544 Oct 06 11:52	15° Y 25'20	-5°-33'00
minimum elong	4539 Jun 24 13:40	4° S 58'43	0°28'31	min. Earth dist.	4544 Oct 06 10:31	15° Y 26'14	0.37007 AU
	4539 Jul 29 16:26	0° Q		greatest brilliancy	4544 Oct 06 16:31	15° Y 22'15	-2.9m
max. Earth dist.	4539 Aug 04 17:43	4° Q 12'27	2.50877 AU	direct	4544 Nov 05 02:30	10° Y 29'51	
morning rise	4539 Aug 21 23:42	16° Q 01'47		asc. node	4544 Dec 31 06:03	27° Y 26'26	
	4539 Sep 11 19:42	0° M			4545 Jan 05 04:15	0° B	
	4539 Oct 28 06:14	0° A			4545 Feb 24 18:44	0° II	
	4539 Dec 16 09:53	0° M			4545 Apr 12 11:01	0° S	
	4540 Feb 08 17:24	0° J			4545 May 28 23:11	0° Q	
retrograde	4540 Apr 29 08:13	25° J 43'38			4545 Jul 15 01:43	0° M	
desc. node	4540 May 19 03:18	23° J 16'15			4545 Aug 31 14:43	0° A	

evening set	4545 Sep 13 18:33	8°♄18'05			4550 May 19 03:06	0°♄	
	4545 Oct 18 00:08	0°♄			4550 Jun 26 19:16	0°♄	
max. Earth dist.	4545 Oct 20 10:04	1°♄32'19	2.67180 AU		4550 Aug 05 18:38	0°♄	
				asc. node	4550 Aug 23 03:36	12°♄32'46	
conjunction	4545 Oct 28 23:41	7°♄00'43	0°36'47		4550 Sep 17 06:03	0°♄	
minimum elong	4545 Oct 29 00:39	7°♄02'16	0°36'46		4550 Nov 03 10:37	0°♄	
	4545 Dec 03 14:31	0°♄			4551 Jan 06 20:57	0°♄	
morning rise	4545 Dec 12 02:37	5°♄33'19		retrograde	4551 Feb 02 12:39	4°♄06'17	
desc. node	4546 Jan 08 23:21	23°♄58'03			4551 Feb 27 06:51	30°♄	
	4546 Jan 17 23:45	0°♄		min. Earth dist.	4551 Mar 12 13:37	25°♄05'27	0.66214 AU
	4546 Mar 03 00:47	0°♄		opposition	4551 Mar 14 20:21	24°♄10'43	4°25'49
	4546 Apr 14 19:33	0°♄		greatest brilliancy	4551 Mar 14 08:34	24°♄22'29	-1.3m
	4546 May 26 15:44	0°♄		direct	4551 Apr 23 15:18	14°♄43'32	
	4546 Jul 07 08:15	0°♄			4551 Jun 21 09:36	0°♄	
	4546 Aug 19 23:44	0°♄			4551 Aug 18 21:58	0°♄	
	4546 Oct 14 21:40	0°♄		desc. node	4551 Aug 31 19:53	7°♄30'38	
retrograde	4546 Nov 13 12:26	5°♄49'24			4551 Oct 07 09:13	0°♄	
asc. node	4546 Nov 18 05:25	5°♄39'32			4551 Nov 21 12:03	0°♄	
min. Earth dist.	4546 Dec 11 03:18	0°♄35'24	0.45269 AU		4552 Jan 02 12:51	0°♄	
	4546 Dec 12 21:02	30°♄		evening set	4552 Jan 15 09:22	9°♄32'16	
opposition	4546 Dec 19 11:50	27°♄42'03	1°50'36	max. Earth dist.	4552 Feb 10 22:11	29°♄40'42	2.38584 AU
greatest brilliancy	4546 Dec 18 13:46	28°♄01'11	-2.4m		4552 Feb 11 08:13	0°♄	
direct	4547 Jan 20 22:51	21°♄06'38					
	4547 Mar 02 17:08	0°♄		conjunction	4552 Mar 16 11:38	26°♄36'27	-1°-1'-44
	4547 May 02 20:47	0°♄		minimum elong	4552 Mar 16 13:26	26°♄40'00	1°01'44
	4547 Jun 23 17:55	0°♄			4552 Mar 20 19:02	0°♄	
	4547 Aug 12 11:12	0°♄			4552 Apr 27 18:52	0°♄	
	4547 Sep 29 18:03	0°♄		morning rise	4552 May 26 10:57	22°♄27'12	
evening set	4547 Oct 20 06:57	13°♄04'15			4552 Jun 05 05:03	0°♄	
max. Earth dist.	4547 Nov 13 15:30	28°♄51'54	2.61809 AU	asc. node	4552 Jul 10 01:39	26°♄24'38	
	4547 Nov 15 09:02	0°♄			4552 Jul 14 21:55	0°♄	
desc. node	4547 Nov 26 22:01	7°♄37'09			4552 Aug 25 16:04	0°♄	
					4552 Oct 09 06:55	0°♄	
conjunction	4547 Dec 05 01:08	13°♄02'16	0°-4'-32		4552 Nov 27 09:14	0°♄	
minimum elong	4547 Dec 05 00:58	13°♄02'00	0°04'33		4553 Jan 28 19:47	0°♄	
behind sun begin	4547 Dec 04 06:11	12°♄30'36		retrograde	4553 Mar 07 18:57	7°♄25'16	
behind sun end	4547 Dec 05 19:45	13°♄33'25			4553 Apr 11 11:47	30°♄	
	4547 Dec 30 01:58	0°♄		opposition	4553 Apr 16 19:23	27°♄55'20	3°00'09
morning rise	4548 Jan 20 22:11	15°♄09'21		greatest brilliancy	4553 Apr 17 00:41	27°♄50'06	-1.2m
	4548 Feb 10 20:29	0°♄		min. Earth dist.	4553 Apr 18 09:26	27°♄17'43	0.67695 AU
	4548 Mar 22 21:52	0°♄		direct	4553 May 28 03:26	17°♄57'30	
	4548 May 01 16:45	0°♄			4553 Jul 17 14:04	0°♄	
	4548 Jun 09 21:08	0°♄		desc. node	4553 Jul 18 18:50	0°♄29'47	
	4548 Jul 19 10:05	0°♄			4553 Sep 13 22:05	0°♄	
	4548 Aug 29 19:31	0°♄			4553 Oct 31 03:02	0°♄	
asc. node	4548 Oct 05 04:01	23°♄57'20			4553 Dec 12 16:47	0°♄	
	4548 Oct 15 06:29	0°♄			4554 Jan 21 12:41	0°♄	
retrograde	4548 Dec 28 02:36	26°♄26'38			4554 Feb 28 20:53	0°♄	
min. Earth dist.	4549 Jan 30 07:47	19°♄02'52	0.58244 AU	evening set	4554 Mar 22 04:00	16°♄51'17	
greatest brilliancy	4549 Feb 04 01:49	17°♄11'08	-1.7m		4554 Apr 07 19:15	0°♄	
opposition	4549 Feb 05 10:18	16°♄39'11	4°33'30		4554 May 16 06:43	0°♄	
direct	4549 Mar 14 07:58	8°♄12'37		asc. node	4554 May 28 00:22	8°♄58'09	
	4549 May 25 13:25	0°♄					
	4549 Jul 21 00:28	0°♄		conjunction	4554 May 30 03:03	10°♄34'19	0°01'28
	4549 Sep 09 14:02	0°♄		minimum elong	4554 May 30 02:52	10°♄33'59	0°01'28
desc. node	4549 Oct 13 20:45	21°♄32'52		behind sun begin	4554 May 28 22:38	9°♄40'26	
	4549 Oct 26 21:51	0°♄		behind sun end	4554 May 31 07:07	11°♄27'28	
evening set	4549 Nov 27 14:09	21°♄08'07			4554 Jun 25 02:44	0°♄	
	4549 Dec 10 11:51	0°♄		max. Earth dist.	4554 Jul 18 11:07	16°♄57'22	2.45563 AU
max. Earth dist.	4549 Dec 12 19:13	1°♄36'02	2.51475 AU	morning rise	4554 Aug 01 23:52	27°♄15'39	
					4554 Aug 05 21:39	0°♄	
conjunction	4550 Jan 16 16:38	26°♄23'04	0°-48'-53		4554 Sep 19 00:12	0°♄	
minimum elong	4550 Jan 16 15:00	26°♄20'06	0°48'53		4554 Nov 04 18:18	0°♄	
	4550 Jan 21 15:52	0°♄			4554 Dec 25 04:57	0°♄	
	4550 Mar 02 21:02	0°♄			4555 Feb 23 15:45	0°♄	
morning rise	4550 Mar 13 13:21	8°♄09'34		retrograde	4555 Apr 13 21:21	11°♄25'12	
	4550 Apr 10 18:38	0°♄		opposition	4555 May 22 09:07	2°♄44'06	0°32'52

greatest brilliancy	4555 May 22 13:08	2°♏40'14	-1.5m			4560 Sep 07 12:09	0°♎	
min. Earth dist.	4555 May 27 17:15	0°♏41'05	0.62584 AU	max. Earth dist.		4560 Oct 11 11:36	21°♎33'57	2.67811 AU
	4555 May 29 12:42	30°♎♎						
desc. node	4555 Jun 05 17:30	27°♎26'27		conjunction		4560 Oct 15 01:03	23°♎49'45	0°49'12
direct	4555 Jul 02 17:03	22°♎45'51		minimum elong		4560 Oct 15 02:08	23°♎51'27	0°49'11
	4555 Aug 08 05:21	0°♏				4560 Oct 24 17:47	0°♎	
	4555 Oct 06 12:55	0°♏		morning rise		4560 Nov 28 02:18	21°♎59'46	
	4555 Nov 20 15:54	0°♏				4560 Dec 10 11:49	0°♏	
	4555 Dec 31 08:37	0°♏		desc. node		4561 Jan 25 14:00	0°♏08'29	
	4556 Feb 08 02:30	0°♏				4561 Jan 25 08:52	0°♏	
	4556 Mar 17 08:52	0°♏				4561 Mar 11 06:22	0°♏	
asc. node	4556 Apr 14 00:38	21°♏26'01				4561 Apr 24 07:21	0°♏	
	4556 Apr 25 05:46	0°♎				4561 Jun 06 22:25	0°♏	
evening set	4556 May 30 00:22	25°♎58'10				4561 Jul 21 14:43	0°♏	
	4556 Jun 04 12:48	0°♏				4561 Sep 12 14:46	0°♎	
	4556 Jul 16 18:01	0°♎		retrograde		4561 Oct 21 15:44	9°♎33'44	
				min. Earth dist.		4561 Nov 17 02:02	4°♎59'39	0.40370 AU
conjunction	4556 Jul 27 04:48	7°♎12'27	0°56'32	opposition		4561 Nov 24 02:56	2°♎48'56	0°-43'-34
minimum elong	4556 Jul 27 03:06	7°♎09'33	0°56'31	greatest brilliancy		4561 Nov 23 20:25	2°♎54'01	-2.7m
max. Earth dist.	4556 Aug 24 06:14	26°♎10'03	2.57996 AU			4561 Dec 03 21:05	30°♎♏	
	4556 Aug 30 00:41	0°♎		asc. node		4561 Dec 04 21:47	29°♏44'32	
morning rise	4556 Sep 17 00:57	11°♎50'09		direct		4561 Dec 24 16:58	27°♏10'26	
	4556 Oct 15 05:29	0°♎				4562 Jan 15 02:54	0°♎	
	4556 Dec 02 04:44	0°♎				4562 Mar 23 11:15	0°♏	
	4557 Jan 21 10:10	0°♏				4562 May 13 19:45	0°♎	
	4557 Mar 18 03:20	0°♏				4562 Jul 02 03:08	0°♎	
desc. node	4557 Apr 22 16:21	14°♏52'54				4562 Aug 19 18:35	0°♎	
retrograde	4557 May 29 12:15	21°♏45'59		evening set		4562 Oct 06 00:33	29°♎37'23	
opposition	4557 Jul 03 18:51	14°♏29'28	-3°-7'-8			4562 Oct 06 14:49	0°♎	
greatest brilliancy	4557 Jul 05 02:26	14°♏01'26	-2.0m	max. Earth dist.		4562 Nov 03 22:25	18°♎07'44	2.64531 AU
min. Earth dist.	4557 Jul 12 00:50	11°♏34'08	0.51504 AU					
direct	4557 Aug 11 14:40	5°♏33'59		conjunction		4562 Nov 20 04:58	28°♎42'47	0°12'44
	4557 Oct 20 00:47	0°♏		minimum elong		4562 Nov 20 05:22	28°♎43'27	0°12'44
	4557 Dec 04 18:49	0°♏		behind sun begin		4562 Nov 19 17:40	28°♎24'18	
	4558 Jan 14 13:07	0°♏		behind sun end		4562 Nov 20 17:05	29°♎02'35	
	4558 Feb 23 02:22	0°♏				4562 Nov 22 04:09	0°♏	
asc. node	4558 Mar 01 23:43	5°♏13'06		desc. node		4562 Dec 13 13:22	14°♏08'25	
	4558 Apr 04 01:34	0°♎		morning rise		4563 Jan 04 12:02	28°♏55'22	
	4558 May 15 09:03	0°♏				4563 Jan 06 02:00	0°♏	
	4558 Jun 27 11:49	0°♎				4563 Feb 18 06:10	0°♏	
evening set	4558 Jul 21 06:26	16°♎01'03				4563 Mar 31 20:24	0°♏	
	4558 Aug 11 09:53	0°♎				4563 May 11 05:22	0°♏	
						4563 Jun 20 00:45	0°♏	
conjunction	4558 Sep 08 21:06	18°♎30'37	1°07'24			4563 Jul 30 08:57	0°♎	
minimum elong	4558 Sep 08 21:26	18°♎31'09	1°07'24			4563 Sep 11 09:45	0°♏	
max. Earth dist.	4558 Sep 19 14:57	25°♎25'16	2.65619 AU	asc. node		4563 Oct 22 21:20	24°♏21'54	
	4558 Sep 26 18:25	0°♎				4563 Nov 04 02:19	0°♎	
morning rise	4558 Oct 24 21:00	17°♎53'59		retrograde		4563 Dec 13 00:15	9°♎09'35	
	4558 Nov 12 23:53	0°♎		min. Earth dist.		4564 Jan 12 23:36	2°♎34'29	0.53537 AU
	4558 Dec 30 16:02	0°♏		greatest brilliancy		4564 Jan 18 21:25	0°♎19'38	-1.9m
	4559 Feb 16 19:57	0°♏				4564 Jan 19 17:54	30°♎♏	
desc. node	4559 Mar 10 14:59	13°♏21'56		opposition		4564 Jan 20 09:39	29°♏44'57	4°00'24
	4559 Apr 07 08:17	0°♏		direct		4564 Feb 24 18:38	21°♏54'30	
	4559 May 31 18:03	0°♏				4564 Apr 04 05:34	0°♎	
retrograde	4559 Aug 05 19:50	20°♏01'47				4564 Jun 06 18:45	0°♎	
opposition	4559 Sep 05 07:17	14°♏51'43	-6°-35'-28			4564 Jul 29 11:49	0°♎	
greatest brilliancy	4559 Sep 06 22:22	14°♏24'23	-2.7m			4564 Sep 16 22:12	0°♎	
min. Earth dist.	4559 Sep 10 13:19	13°♏23'53	0.38951 AU	desc. node		4564 Oct 30 12:15	27°♎47'07	
direct	4559 Oct 07 05:52	9°♏05'03				4564 Nov 02 21:31	0°♏	
	4559 Dec 08 06:18	0°♏		evening set		4564 Nov 11 13:52	5°♏43'01	
asc. node	4560 Jan 17 21:45	25°♏13'27		max. Earth dist.		4564 Nov 29 16:30	17°♏50'02	2.56057 AU
	4560 Jan 25 02:00	0°♏				4564 Dec 17 11:46	0°♏	
	4560 Mar 09 03:27	0°♎						
	4560 Apr 22 03:51	0°♏		conjunction		4564 Dec 29 09:12	8°♏16'25	0°-32'-35
	4560 Jun 06 04:54	0°♎		minimum elong		4564 Dec 29 08:00	8°♏14'20	0°32'34
	4560 Jul 22 10:34	0°♎				4565 Jan 28 20:23	0°♏	
evening set	4560 Aug 30 05:46	24°♎45'03		morning rise		4565 Feb 18 15:57	15°♏16'20	

	4565 Mar 10 08:12	0° H			4570 Oct 16 17:42	0° Z	
	4565 Apr 18 12:27	0° Y			4570 Nov 29 10:16	0° \approx	
	4565 May 27 02:38	0° B			4571 Jan 08 15:26	0° H	
	4565 Jul 04 23:57	0° II			4571 Feb 16 03:41	0° Y	
	4565 Aug 14 06:30	0° S			4571 Mar 26 05:30	0° B	
asc. node	4565 Sep 08 19:03	18° S 03'27		asc. node	4571 May 01 16:54	28° B 19'24	
	4565 Sep 26 12:16	0° Q			4571 May 03 21:29	0° II	
	4565 Nov 15 16:28	0° M		evening set	4571 May 05 15:17	1° II 19'49	
retrograde	4566 Jan 19 22:26	20° M 30'13			4571 Jun 12 22:53	0° S	
min. Earth dist.	4566 Feb 25 05:39	12° M 03'03	0.63852 AU				
greatest brilliancy	4566 Feb 28 04:23	10° M 52'26	-1.4m	conjunction	4571 Jul 07 14:12	17° S 47'04	0°40'56
opposition	4566 Mar 01 00:45	10° M 32'04	4°40'37	minimum elong	4571 Jul 07 12:02	17° S 43'14	0°40'54
direct	4566 Apr 08 20:11	1° M 24'19			4571 Jul 24 22:37	0° Q	
	4566 Jul 04 13:25	0° A		max. Earth dist.	4571 Aug 12 19:52	13° Q 01'08	2.53605 AU
	4566 Aug 27 12:29	0° M		morning rise	4571 Sep 01 07:08	26° Q 09'13	
desc. node	4566 Sep 17 10:45	12° M 39'53			4571 Sep 07 01:50	0° M	
	4566 Oct 14 21:44	0° J			4571 Oct 23 08:39	0° A	
	4566 Nov 28 17:56	0° Z			4571 Dec 10 22:40	0° M	
evening set	4566 Dec 25 14:00	18° Z 56'30			4572 Feb 01 06:24	0° J	
	4567 Jan 09 19:13	0° \approx			4572 Apr 08 18:55	0° Z	
max. Earth dist.	4567 Jan 09 17:13	29° Z 56'20	2.43501 AU	retrograde	4572 May 09 13:31	4° Z 56'53	
	4567 Feb 18 17:50	0° H		desc. node	4572 May 09 07:00	4° Z 56'51	
					4572 Jun 06 21:43	30° R J	
conjunction	4567 Feb 19 10:23	0° H 31'45	-1°-4'-38	opposition	4572 Jun 15 08:18	27° J 01'19	-1°-32'-25
minimum elong	4567 Feb 19 09:49	0° H 30'38	1°04'39	greatest brilliancy	4572 Jun 15 22:39	26° J 48'02	-1.7m
	4567 Mar 29 08:03	0° Y		min. Earth dist.	4572 Jun 22 16:32	24° J 18'16	0.56448 AU
morning rise	4567 Apr 26 05:05	21° Y 57'23		direct	4572 Jul 25 13:42	17° J 28'56	
	4567 May 06 10:12	0° B			4572 Sep 11 15:41	0° Z	
	4567 Jun 13 21:21	0° II			4572 Nov 02 22:47	0° \approx	
	4567 Jul 23 14:35	0° S			4572 Dec 15 12:16	0° H	
asc. node	4567 Jul 27 18:40	3° S 04'12			4573 Jan 24 02:18	0° Y	
	4567 Sep 03 11:26	0° Q			4573 Mar 03 22:19	0° B	
	4567 Oct 18 15:10	0° M		asc. node	4573 Mar 18 15:56	11° B 18'45	
	4567 Dec 09 00:20	0° A			4573 Apr 12 07:39	0° II	
retrograde	4568 Feb 23 10:27	24° A 51'00			4573 May 23 02:46	0° S	
opposition	4568 Apr 03 17:00	15° A 08'15	3°40'35	evening set	4573 Jul 02 18:27	28° S 36'38	
greatest brilliancy	4568 Apr 03 16:56	15° A 08'19	-1.2m		4573 Jul 04 18:57	0° Q	
min. Earth dist.	4568 Apr 03 18:49	15° A 06'26	0.67907 AU		4573 Aug 18 09:18	0° M	
direct	4568 May 14 14:14	5° A 19'20					
	4568 Jul 31 21:42	0° M		conjunction	4573 Aug 24 00:47	3° M 42'54	1°07'27
desc. node	4568 Aug 04 09:29	1° M 46'47		minimum elong	4573 Aug 24 00:24	3° M 42'17	1°07'27
	4568 Sep 22 22:36	0° J		max. Earth dist.	4573 Sep 09 23:06	14° M 45'54	2.63285 AU
	4568 Nov 08 01:22	0° Z			4573 Oct 03 14:38	0° A	
	4568 Dec 20 08:02	0° \approx		morning rise	4573 Oct 10 17:42	4° A 33'15	
	4569 Jan 29 02:55	0° H			4573 Nov 20 00:04	0° M	
evening set	4569 Feb 21 20:30	18° H 28'49			4574 Jan 07 08:48	0° J	
	4569 Mar 08 11:26	0° Y			4574 Feb 26 06:36	0° Z	
	4569 Apr 15 09:36	0° B		desc. node	4574 Mar 27 05:59	16° Z 32'09	
					4574 Apr 21 14:50	0° \approx	
conjunction	4569 May 01 06:28	12° B 28'42	0°-29'-8	retrograde	4574 Jul 06 14:19	24° \approx 12'40	
minimum elong	4569 May 01 09:13	12° B 34'05	0°29'07	opposition	4574 Aug 08 01:27	18° \approx 13'11	-5°-42'-2
	4569 May 23 19:38	0° II		greatest brilliancy	4574 Aug 10 03:55	17° \approx 33'30	-2.4m
asc. node	4569 Jun 13 18:28	15° II 58'45		min. Earth dist.	4574 Aug 16 00:21	15° \approx 44'26	0.43309 AU
max. Earth dist.	4569 Jun 21 19:20	22° II 00'59	2.40097 AU	direct	4574 Sep 12 03:17	11° \approx 01'04	
	4569 Jul 02 13:04	0° S			4574 Nov 09 09:43	0° H	
morning rise	4569 Jul 09 14:36	5° S 11'42			4574 Dec 26 14:33	0° Y	
	4569 Aug 13 05:45	0° Q		asc. node	4575 Feb 03 15:20	27° Y 43'24	
	4569 Sep 26 09:40	0° M			4575 Feb 06 19:01	0° B	
	4569 Nov 12 16:34	0° A			4575 Mar 20 10:19	0° II	
	4570 Jan 04 07:36	0° M			4575 May 01 23:34	0° S	
retrograde	4570 Mar 29 19:01	28° M 00'30			4575 Jun 15 01:05	0° Q	
opposition	4570 May 08 00:57	18° M 57'10	1°37'37		4575 Jul 30 15:15	0° M	
greatest brilliancy	4570 May 08 08:55	18° M 49'25	-1.3m	evening set	4575 Aug 16 02:32	10° M 38'19	
min. Earth dist.	4570 May 11 22:31	17° M 26'00	0.65349 AU		4575 Sep 15 08:17	0° A	
direct	4570 Jun 18 14:02	8° M 54'22					
desc. node	4570 Jun 22 08:23	8° M 59'40		conjunction	4575 Oct 01 22:50	10° A 34'26	0°58'54
	4570 Aug 26 09:45	0° J		minimum elong	4575 Oct 01 23:48	10° A 35'58	0°58'54

max. Earth dist.	4575 Oct 03 18:35	11° 2 43'59	2.67615 AU		4580 Oct 07 05:32	0° 2	
	4575 Nov 01 12:13	0° 2			4580 Dec 05 07:17	0° 2	
morning rise	4575 Nov 15 09:09	8° 2 49'42		retrograde	4581 Jan 05 16:50	5° 2 53'23	
	4575 Dec 18 12:30	0° 2			4581 Feb 04 01:09	30° 2 40	
	4576 Feb 03 01:32	0° 2		min. Earth dist.	4581 Feb 09 01:22	28° 2 05'26	0.60477 AU
desc. node	4576 Feb 12 05:28	5° 2 56'46		greatest brilliancy	4581 Feb 13 03:50	26° 2 27'58	-1.5m
	4576 Mar 20 03:54	0° 2		opposition	4581 Feb 14 08:33	25° 2 59'28	4°41'36
	4576 May 05 05:04	0° 2		direct	4581 Mar 23 23:17	17° 2 16'35	
	4576 Jun 21 11:38	0° 2			4581 May 15 06:08	0° 2	
	4576 Aug 16 05:37	0° 2			4581 Jul 14 21:25	0° 2	
retrograde	4576 Sep 24 04:53	9° 2 00'25			4581 Sep 04 10:50	0° 2	
min. Earth dist.	4576 Oct 21 19:36	4° 2 29'13	0.37356 AU	desc. node	4581 Oct 04 01:10	18° 2 12'49	
opposition	4576 Oct 24 23:53	3° 2 37'20	-3°-58'-55		4581 Oct 22 03:11	0° 2	
greatest brilliancy	4576 Oct 24 13:45	3° 2 44'15	-2.9m		4581 Dec 05 19:46	0° 2	
	4576 Nov 09 02:45	30° 2 40'00		evening set	4581 Dec 07 05:57	0° 2 59'13	
direct	4576 Nov 23 08:45	28° 2 40'57		max. Earth dist.	4581 Dec 21 11:01	10° 2 56'25	2.48708 AU
	4576 Dec 07 16:43	0° 2			4582 Jan 16 23:03	0° 2	
asc. node	4576 Dec 21 13:27	3° 2 31'22					
	4577 Feb 15 00:34	0° 2		conjunction	4582 Jan 28 01:27	8° 2 10'05	0°-56'-35
	4577 Apr 05 13:21	0° 2		minimum elong	4582 Jan 27 23:51	8° 2 07'08	0°56'34
	4577 May 23 06:29	0° 2			4582 Feb 26 02:05	0° 2	
	4577 Jul 10 00:00	0° 2		morning rise	4582 Mar 28 04:19	23° 2 12'53	
	4577 Aug 26 21:00	0° 2			4582 Apr 05 21:00	0° 2	
evening set	4577 Sep 21 21:33	16° 2 22'21			4582 May 14 02:53	0° 2	
	4577 Oct 13 09:44	0° 2			4582 Jun 21 16:42	0° 2	
max. Earth dist.	4577 Oct 25 15:59	7° 2 49'25	2.66478 AU		4582 Jul 31 12:39	0° 2	
				asc. node	4582 Aug 13 11:26	9° 2 26'09	
conjunction	4577 Nov 05 23:14	15° 2 04'42	0°28'29		4582 Sep 11 16:12	0° 2	
minimum elong	4577 Nov 06 00:02	15° 2 06'01	0°28'28		4582 Oct 27 19:42	0° 2	
	4577 Nov 28 23:38	0° 2			4582 Dec 23 05:00	0° 2	
morning rise	4577 Dec 20 08:08	14° 2 02'41		retrograde	4583 Feb 10 04:51	12° 2 05'05	
desc. node	4577 Dec 30 04:10	20° 2 35'14		min. Earth dist.	4583 Mar 21 02:11	2° 2 47'41	0.67088 AU
	4578 Jan 13 04:50	0° 2		opposition	4583 Mar 22 12:47	2° 2 13'05	4°12'03
	4578 Feb 25 21:57	0° 2		greatest brilliancy	4583 Mar 22 05:31	2° 2 20'21	-1.2m
	4578 Apr 09 05:27	0° 2			4583 Mar 28 03:31	30° 2 40	
	4578 May 20 10:30	0° 2		direct	4583 May 01 17:53	22° 2 37'11	
	4578 Jun 30 05:43	0° 2			4583 Jun 09 06:50	0° 2	
	4578 Aug 11 02:57	0° 2			4583 Aug 12 15:53	0° 2	
	4578 Sep 27 11:01	0° 2		desc. node	4583 Aug 21 23:57	5° 2 14'14	
asc. node	4578 Nov 08 13:16	17° 2 19'21			4583 Oct 02 04:04	0° 2	
retrograde	4578 Nov 24 23:42	19° 2 12'22			4583 Nov 16 15:13	0° 2	
min. Earth dist.	4578 Dec 23 16:05	13° 2 30'22	0.48243 AU		4583 Dec 28 18:26	0° 2	
opposition	4578 Dec 31 23:37	10° 2 30'22	2°52'15	evening set	4584 Jan 28 08:28	22° 2 55'32	
greatest brilliancy	4578 Dec 30 16:00	10° 2 59'02	-2.2m		4584 Feb 06 13:58	0° 2	
direct	4579 Feb 03 13:43	3° 2 25'30			4584 Mar 15 23:55	0° 2	
	4579 Apr 24 09:53	0° 2		max. Earth dist.	4584 Mar 23 06:03	5° 2 43'51	2.36889 AU
	4579 Jun 17 18:19	0° 2					
	4579 Aug 07 08:30	0° 2		conjunction	4584 Apr 01 12:12	13° 2 03'03	0°-53'-41
	4579 Sep 25 00:08	0° 2		minimum elong	4584 Apr 01 15:17	13° 2 09'09	0°53'41
evening set	4579 Oct 28 14:14	21° 2 12'50			4584 Apr 22 22:40	0° 2	
	4579 Nov 10 18:02	0° 2			4584 May 31 08:04	0° 2	
desc. node	4579 Nov 17 02:39	4° 2 11'05		morning rise	4584 Jun 12 08:52	9° 2 13'53	
max. Earth dist.	4579 Nov 19 15:09	5° 2 51'04	2.59970 AU	asc. node	4584 Jun 30 09:56	22° 2 15'54	
					4584 Jul 10 00:05	0° 2	
conjunction	4579 Dec 13 21:21	22° 2 06'54	0°-14'-51		4584 Aug 20 16:11	0° 2	
minimum elong	4579 Dec 13 20:49	22° 2 05'59	0°14'52		4584 Oct 04 00:47	0° 2	
behind sun begin	4579 Dec 13 12:59	21° 2 52'41			4584 Nov 21 05:27	0° 2	
behind sun end	4579 Dec 14 04:39	22° 2 19'18			4585 Jan 17 02:47	0° 2	
	4579 Dec 25 10:20	0° 2		retrograde	4585 Mar 15 15:43	15° 2 09'31	
morning rise	4580 Jan 31 00:09	25° 2 39'16		opposition	4585 Apr 24 10:34	5° 2 48'11	2°32'20
	4580 Feb 06 01:30	0° 2		greatest brilliancy	4585 Apr 24 17:43	5° 2 41'08	-1.3m
	4580 Mar 17 22:13	0° 2		min. Earth dist.	4585 Apr 26 20:28	4° 2 51'08	0.67128 AU
	4580 Apr 26 11:43	0° 2			4585 May 10 03:30	30° 2 40	
	4580 Jun 04 10:20	0° 2		direct	4585 Jun 04 21:38	25° 2 47'16	
	4580 Jul 13 16:11	0° 2			4585 Jul 02 19:50	0° 2	
	4580 Aug 23 11:55	0° 2		desc. node	4585 Jul 08 22:49	1° 2 50'47	
asc. node	4580 Sep 25 13:22	22° 2 34'19			4585 Sep 07 08:09	0° 2	

	4585 Oct 25 16:12	0°☾			4590 Sep 22 03:28	0°♄	
	4585 Dec 07 14:30	0°♊		max. Earth dist.	4590 Sep 24 22:54	1°♄47'46	2.66577 AU
	4586 Jan 16 13:47	0°♋		morning rise	4590 Nov 01 18:28	25°♄51'02	
	4586 Feb 23 23:25	0°♌			4590 Nov 08 07:33	0°♍	
greatest brilliancy	4586 Mar 06 20:55	8°♌36'41	1.2m		4590 Dec 25 16:57	0°♎	
	4586 Apr 02 22:38	0°♏			4591 Feb 11 04:13	0°☾	
evening set	4586 Apr 07 12:07	3°♏35'19		desc. node	4591 Feb 28 19:39	11°☾06'05	
	4586 May 11 11:04	0°♐			4591 Mar 31 03:04	0°♊	
asc. node	4586 May 18 10:08	5°♐19'37			4591 May 20 01:08	0°♋	
					4591 Jul 19 15:10	0°♌	
conjunction	4586 Jun 13 22:42	25°♐16'55	0°17'40	retrograde	4591 Aug 23 23:35	7°♌03'58	
minimum elong	4586 Jun 13 21:17	25°♐14'18	0°17'39	opposition	4591 Sep 23 00:50	2°♌07'10	-6°-17'-54
	4586 Jun 20 07:58	0°♑		greatest brilliancy	4591 Sep 23 21:53	1°♌53'02	-2.9m
max. Earth dist.	4586 Jul 28 22:20	27°♑45'18	2.48540 AU	min. Earth dist.	4591 Sep 25 13:18	1°♌26'39	0.37491 AU
	4586 Aug 01 03:14	0°♒			4591 Oct 01 03:41	30°♋	
morning rise	4586 Aug 13 15:49	8°♒41'29		direct	4591 Oct 23 11:25	26°♋56'10	
	4586 Sep 14 04:33	0°♓			4591 Nov 14 02:34	0°♌	
	4586 Oct 30 16:25	0°♄		asc. node	4592 Jan 08 06:55	25°♌53'08	
	4586 Dec 19 05:44	0°♍			4592 Jan 15 02:57	0°♏	
	4587 Feb 13 08:32	0°♎			4592 Mar 01 20:36	0°♐	
retrograde	4587 Apr 23 02:08	19°♎55'27			4592 Apr 16 02:48	0°♑	
desc. node	4587 May 26 22:15	13°♎01'14			4592 May 31 20:35	0°♒	
opposition	4587 May 31 00:58	11°♎28'53	0°-9'-44		4592 Jul 17 12:25	0°♓	
greatest brilliancy	4587 May 22 01:21	14°♎44'31	-1.6m		4592 Sep 02 19:48	0°♄	
min. Earth dist.	4587 Jun 06 03:13	9°♎09'50	0.60625 AU	evening set	4592 Sep 07 14:55	3°♄02'03	
direct	4587 Jul 11 01:56	1°♎36'34		max. Earth dist.	4592 Oct 16 15:35	27°♄46'30	2.67574 AU
	4587 Sep 28 22:45	0°☾			4592 Oct 20 03:28	0°♍	
	4587 Nov 14 15:08	0°♊					
	4587 Dec 25 19:57	0°♋		conjunction	4592 Oct 23 00:53	1°♍50'35	0°42'14
	4588 Feb 02 19:34	0°♌		minimum elong	4592 Oct 23 01:55	1°♍52'14	0°42'14
	4588 Mar 12 05:40	0°♏			4592 Dec 05 19:50	0°♎	
asc. node	4588 Apr 04 08:15	17°♏52'09		morning rise	4592 Dec 06 01:21	0°♎08'57	
	4588 Apr 20 06:00	0°♐		desc. node	4593 Jan 15 18:46	26°♎53'55	
	4588 May 30 16:16	0°♑			4593 Jan 20 10:38	0°☾	
evening set	4588 Jun 12 00:15	8°♑53'23			4593 Mar 05 20:41	0°♊	
	4588 Jul 12 00:12	0°♒			4593 Apr 18 04:05	0°♋	
					4593 May 30 16:36	0°♌	
conjunction	4588 Aug 06 19:18	17°♒36'41	1°02'17		4593 Jul 12 09:00	0°♏	
minimum elong	4588 Aug 06 18:04	17°♒34'37	1°02'16		4593 Aug 27 05:54	0°♐	
	4588 Aug 25 08:30	0°♓		retrograde	4593 Nov 04 01:35	25°♐23'19	
max. Earth dist.	4588 Aug 30 14:41	3°♓28'28	2.60107 AU	asc. node	4593 Nov 25 06:39	22°♐13'13	
morning rise	4588 Sep 25 22:06	20°♓37'55		min. Earth dist.	4593 Nov 30 22:27	20°♐30'23	0.42946 AU
	4588 Oct 10 12:14	0°♄		greatest brilliancy	4593 Dec 08 13:23	17°♐59'20	-2.5m
	4588 Nov 27 04:47	0°♍		opposition	4593 Dec 09 00:06	17°♐50'27	0°51'58
	4589 Jan 15 14:09	0°♎		direct	4594 Jan 09 13:32	11°♐40'29	
	4589 Mar 09 10:22	0°☾			4594 Mar 12 13:50	0°♑	
desc. node	4589 Apr 12 20:58	17°☾00'39			4594 May 07 00:39	0°♒	
	4589 May 19 14:38	0°♊			4594 Jun 26 15:10	0°♓	
retrograde	4589 Jun 11 02:02	2°♊47'52			4594 Aug 14 20:23	0°♄	
	4589 Jul 02 05:49	30°♋			4594 Oct 01 22:43	0°♍	
opposition	4589 Jul 15 10:09	25°☾56'22	-4°-4'-49	evening set	4594 Oct 14 03:46	7°♍45'14	
greatest brilliancy	4589 Jul 17 03:12	25°☾21'02	-2.1m	max. Earth dist.	4594 Nov 09 13:20	24°♍45'40	2.63135 AU
min. Earth dist.	4589 Jul 23 21:40	23°☾02'16	0.48580 AU		4594 Nov 17 13:47	0°♎	
direct	4589 Aug 22 03:21	17°☾30'26					
	4589 Oct 07 13:04	0°♊		conjunction	4594 Nov 28 14:07	7°♎15'20	0°02'52
	4589 Nov 27 00:25	0°♋		minimum elong	4594 Nov 28 14:13	7°♎15'29	0°02'52
	4590 Jan 08 00:28	0°♌		behind sun begin	4594 Nov 27 19:18	6°♎44'13	
	4590 Feb 17 04:23	0°♏		behind sun end	4594 Nov 29 09:09	7°♎46'47	
asc. node	4590 Feb 20 06:45	2°♏19'15		desc. node	4594 Dec 03 17:23	10°♎39'44	
	4590 Mar 29 13:43	0°♐			4595 Jan 01 09:52	0°☾	
	4590 May 10 05:08	0°♑		morning rise	4595 Jan 13 15:37	8°☾24'53	
	4590 Jun 22 14:07	0°♒			4595 Feb 13 09:27	0°♊	
evening set	4590 Jul 31 01:26	25°♒38'53			4595 Mar 26 17:04	0°♋	
	4590 Aug 06 16:45	0°♓			4595 May 05 18:17	0°♌	
					4595 Jun 14 04:32	0°♏	
conjunction	4590 Sep 17 11:52	27°♓01'30	1°05'21		4595 Jul 24 00:07	0°♐	
minimum elong	4590 Sep 17 12:30	27°♓02'31	1°05'22		4595 Sep 03 21:15	0°♑	

asc. node	4595 Oct 13 04:59	25° $\overline{50}$ 00'55	
	4595 Oct 22 03:20	0° \overline{Q}	
retrograde	4595 Dec 22 09:47	19° \overline{Q} 44'22	
min. Earth dist.	4596 Jan 23 15:22	12° \overline{Q} 41'14	0.56233 AU
greatest brilliancy	4596 Jan 28 21:20	10° \overline{Q} 39'02	-1.8m
opposition	4596 Jan 30 08:16	10° \overline{Q} 05'00	4°23'20
direct	4596 Mar 06 13:38	1° \overline{Q} 53'28	
	4596 May 30 05:58	0° \overline{m}	
	4596 Jul 23 21:35	0° \overline{u}	
	4596 Sep 11 23:26	0° \overline{m}	
desc. node	4596 Oct 20 15:52	24° \overline{m} 27'10	
	4596 Oct 29 04:35	0° \overline{x}	
evening set	4596 Nov 20 13:34	14° \overline{x} 49'33	
max. Earth dist.	4596 Dec 06 23:55	25° \overline{x} 58'55	2.53606 AU
	4596 Dec 12 20:01	0° \overline{z}	
conjunction	4597 Jan 08 12:38	18° \overline{z} 45'06	0°-42'-18
minimum elong	4597 Jan 08 11:09	18° \overline{z} 42'27	0°42'18
	4597 Jan 24 03:13	0° \approx	
morning rise	4597 Mar 03 03:09	28° \approx 12'02	
	4597 Mar 05 12:13	0° H	
	4597 Apr 13 13:16	0° Y	
	4597 May 22 00:06	0° B	
	4597 Jun 29 17:48	0° II	
	4597 Aug 08 18:42	0° \overline{z}	
asc. node	4597 Aug 30 04:21	15° \overline{z} 21'30	
	4597 Sep 20 10:35	0° \overline{Q}	
	4597 Nov 07 11:10	0° \overline{m}	
retrograde	4598 Jan 27 19:11	28° \overline{m} 51'59	
min. Earth dist.	4598 Mar 06 01:44	20° \overline{m} 05'32	0.65277 AU
greatest brilliancy	4598 Mar 08 09:08	19° \overline{m} 10'05	-1.3m
opposition	4598 Mar 09 00:42	18° \overline{m} 54'29	4°33'38
direct	4598 Apr 17 09:17	9° \overline{m} 35'28	
	4598 Jun 26 12:21	0° \overline{u}	
	4598 Aug 21 20:45	0° \overline{m}	
desc. node	4598 Sep 07 15:08	9° \overline{m} 55'22	
	4598 Oct 09 21:45	0° \overline{x}	
	4598 Nov 23 23:07	0° \overline{z}	
	4599 Jan 05 01:17	0° \approx	
evening set	4599 Jan 06 00:51	0° \approx 43'17	
max. Earth dist.	4599 Jan 25 07:34	15° \approx 03'47	2.40650 AU
	4599 Feb 13 23:00	0° H	
conjunction	4599 Mar 05 16:20	15° H 15'50	-1°-4'-39
minimum elong	4599 Mar 05 17:00	15° H 17'08	1°04'40
	4599 Mar 24 11:49	0° Y	
	4599 May 01 12:35	0° B	
morning rise	4599 May 13 18:41	9° B 38'02	
	4599 Jun 08 22:39	0° II	
asc. node	4599 Jul 18 03:04	29° II 38'37	
	4599 Jul 18 14:37	0° \overline{z}	
	4599 Aug 29 08:04	0° \overline{Q}	
	4599 Oct 13 01:41	0° \overline{m}	
	4599 Dec 01 19:47	0° \overline{u}	
	4600 Feb 09 22:16	0° \overline{m}	
retrograde	4600 Mar 03 01:53	2° \overline{m} 32'23	
	4600 Mar 22 20:06	30° \overline{R} \overline{u}	
opposition	4600 Apr 12 05:09	22° \overline{u} 56'17	3°17'58
greatest brilliancy	4600 Apr 12 08:17	22° \overline{u} 53'10	-1.2m
min. Earth dist.	4600 Apr 13 02:54	22° \overline{u} 34'41	0.67918 AU
direct	4600 May 23 08:26	13° \overline{u} 01'57	
	4600 Jul 24 08:56	0° \overline{m}	
desc. node	4600 Jul 26 14:30	1° \overline{m} 01'47	
	4600 Sep 18 03:23	0° \overline{x}	
	4600 Nov 03 22:08	0° \overline{z}	
	4600 Dec 16 09:59	0° \approx	

conjunction	4601 May 18 20:38	29°♄09'22	0°-11'-47	morning rise	4605 Oct 19 21:39	12°♂43'19	
minimum elong	4601 May 18 21:47	29°♄11'36	0°11'47		4605 Nov 16 05:21	0°♍	
behind sun begin	4601 May 18 01:35	28°♄32'40			4606 Jan 03 03:56	0°♂	
behind sun end	4601 May 19 18:00	29°♄50'30			4606 Feb 20 23:34	0°♂	
	4601 May 19 22:56	0°♂		desc. node	4606 Mar 18 10:23	15°♂12'42	
asc. node	4601 Jun 05 01:28	12°♂18'33			4606 Apr 13 02:34	0°♌	
	4601 Jun 28 16:43	0°♄			4606 Jun 13 10:22	0°♌	
max. Earth dist.	4601 Jul 09 14:29	8°♄00'11	2.43091 AU	retrograde	4606 Jul 24 01:55	8°♌34'57	
morning rise	4601 Jul 24 07:35	18°♄37'31		opposition	4606 Aug 24 08:10	3°♌04'59	-6°-21'-43
	4601 Aug 09 09:06	0°♂		greatest brilliancy	4606 Aug 26 08:08	2°♌29'42	-2.6m
	4601 Sep 22 10:37	0°♌		min. Earth dist.	4606 Aug 31 03:56	1°♌05'07	0.40693 AU
	4601 Nov 08 07:43	0°♂			4606 Sep 04 01:51	30°♌	
	4601 Dec 29 10:38	0°♍		direct	4606 Sep 26 17:13	26°♌40'53	
	4602 Mar 04 21:51	0°♂			4606 Oct 19 00:32	0°♌	
retrograde	4602 Apr 08 06:50	6°♂03'48			4606 Dec 17 21:28	0°♍	
	4602 May 09 16:17	30°♌		asc. node	4607 Jan 25 23:06	26°♍12'28	
opposition	4602 May 17 03:04	27°♍12'13	1°01'08		4607 Jan 31 09:59	0°♄	
greatest brilliancy	4602 May 17 09:23	27°♍06'07	-1.4m		4607 Mar 15 03:50	0°♂	
min. Earth dist.	4602 May 21 19:36	25°♍23'17	0.63950 AU		4607 Apr 27 09:47	0°♄	
desc. node	4602 Jun 13 12:52	18°♍28'16			4607 Jun 10 22:18	0°♂	
direct	4602 Jun 27 13:46	17°♍10'56			4607 Jul 26 19:51	0°♌	
	4602 Aug 17 09:49	0°♂		evening set	4607 Aug 25 20:23	19°♌15'41	
	4602 Oct 11 10:18	0°♂			4607 Sep 11 16:50	0°♂	
	4602 Nov 24 22:27	0°♌		max. Earth dist.	4607 Oct 09 22:03	17°♂55'59	2.67825 AU
	4603 Jan 04 10:40	0°♌					
	4603 Feb 12 02:17	0°♍		conjunction	4607 Oct 11 01:29	18°♂39'33	0°53'34
	4603 Mar 22 06:06	0°♄		minimum elong	4607 Oct 11 02:32	18°♂41'13	0°53'35
asc. node	4603 Apr 23 01:34	24°♄41'54			4607 Oct 28 21:27	0°♍	
	4603 Apr 29 23:51	0°♂		morning rise	4607 Nov 24 05:19	16°♍48'19	
evening set	4603 May 21 08:31	16°♂07'40			4607 Dec 14 18:23	0°♂	
	4603 Jun 09 03:06	0°♄			4608 Jan 29 22:24	0°♂	
				desc. node	4608 Feb 03 09:15	2°♂55'12	
conjunction	4603 Jul 20 15:07	29°♄37'05	0°50'49		4608 Mar 15 08:04	0°♌	
minimum elong	4603 Jul 20 13:08	29°♄33'38	0°50'48		4608 Apr 29 03:49	0°♌	
	4603 Jul 21 04:17	0°♂			4608 Jun 13 00:51	0°♍	
max. Earth dist.	4603 Aug 21 06:34	21°♂16'25	2.56117 AU		4608 Jul 30 09:10	0°♄	
	4603 Sep 03 08:01	0°♌		retrograde	4608 Oct 11 05:53	27°♄02'03	
morning rise	4603 Sep 12 01:14	5°♌45'48		min. Earth dist.	4608 Nov 06 19:48	22°♄35'49	0.38686 AU
	4603 Oct 19 12:11	0°♂		opposition	4608 Nov 12 11:02	20°♄57'12	-2°-7'-10
	4603 Dec 06 16:03	0°♍		greatest brilliancy	4608 Nov 11 22:06	21°♄06'40	-2.8m
	4604 Jan 26 14:44	0°♂		direct	4608 Dec 12 09:10	15°♄41'40	
	4604 Mar 25 09:16	0°♂		asc. node	4608 Dec 12 22:38	15°♄41'47	
desc. node	4604 Apr 30 11:33	12°♂16'10			4609 Feb 02 14:13	0°♂	
retrograde	4604 May 21 12:46	14°♂42'29			4609 Mar 29 19:59	0°♄	
opposition	4604 Jun 26 12:04	7°♂07'18	-2°-25'-27		4609 May 18 06:38	0°♂	
greatest brilliancy	4604 Jun 27 11:55	6°♂45'39	-1.9m		4609 Jul 05 19:20	0°♌	
min. Earth dist.	4604 Jul 04 09:16	4°♂15'51	0.53798 AU		4609 Aug 23 01:58	0°♂	
	4604 Jul 18 10:08	30°♌		evening set	4609 Sep 30 23:46	24°♂25'21	
direct	4604 Aug 05 00:16	27°♂52'47			4609 Oct 09 18:57	0°♍	
	4604 Aug 23 05:08	0°♂		max. Earth dist.	4609 Oct 31 23:32	14°♍10'44	2.65501 AU
	4604 Oct 26 23:55	0°♌					
	4604 Dec 10 02:03	0°♌		conjunction	4609 Nov 15 01:46	23°♍17'06	0°19'30
	4605 Jan 19 06:34	0°♍		minimum elong	4609 Nov 15 02:22	23°♍18'04	0°19'30
	4605 Feb 27 10:58	0°♄			4609 Nov 25 09:09	0°♂	
asc. node	4605 Mar 10 00:52	8°♄04'27		desc. node	4609 Dec 21 08:24	17°♂09'09	
	4605 Apr 08 02:36	0°♂		morning rise	4609 Dec 29 21:05	22°♂51'49	
	4605 May 19 03:06	0°♄			4610 Jan 09 10:49	0°♂	
	4605 Jun 30 23:29	0°♂			4610 Feb 21 21:19	0°♌	
evening set	4605 Jul 14 12:32	9°♂12'40			4610 Apr 04 19:20	0°♌	
	4605 Aug 14 16:51	0°♌			4610 May 15 13:02	0°♍	
					4610 Jun 24 17:33	0°♄	
conjunction	4605 Sep 03 05:26	12°♌46'01	1°07'58		4610 Aug 04 14:11	0°♂	
minimum elong	4605 Sep 03 05:29	12°♌46'07	1°07'59		4610 Sep 17 19:39	0°♄	
max. Earth dist.	4605 Sep 16 15:26	21°♌26'55	2.64675 AU	asc. node	4610 Oct 30 22:33	23°♄01'48	
	4605 Sep 29 22:52	0°♂			4610 Nov 22 13:58	0°♂	

retrograde	4610 Dec 06 12:49	1°♂20'45			4616 Feb 02 18:57	0°♂	
	4610 Dec 19 23:46	30°♂08'45		evening set	4616 Feb 12 07:22	7°♂21'34	
min. Earth dist.	4611 Jan 05 11:10	25°♂08'45	0.51214 AU		4616 Mar 12 04:38	0°♂	
greatest brilliancy	4611 Jan 11 20:24	22°♂45'55	-2.0m				
opposition	4611 Jan 13 08:09	22°♂12'20	3°36'53	conjunction	4616 Apr 19 03:54	0°♂01'53	0°-41'-6
direct	4611 Feb 16 22:30	14°♂41'00		minimum elong	4616 Apr 19 07:17	0°♂08'34	0°41'06
	4611 Apr 14 23:31	0°♂			4616 Apr 19 02:57	0°♂	
	4611 Jun 12 09:58	0°♂			4616 May 27 11:56	0°♂	
	4611 Aug 03 03:02	0°♂		max. Earth dist.	4616 May 31 09:33	3°♂00'14	2.37969 AU
	4611 Sep 21 05:26	0°♂		asc. node	4616 Jun 21 19:27	19°♂17'53	
evening set	4611 Nov 07 00:59	29°♂56'06		morning rise	4616 Jun 29 04:54	24°♂50'22	
	4611 Nov 07 03:22	0°♂			4616 Jul 06 03:34	0°♂	
desc. node	4611 Nov 08 07:16	0°♂45'45			4616 Aug 16 18:14	0°♂	
max. Earth dist.	4611 Nov 26 21:28	13°♂04'52	2.57895 AU		4616 Sep 29 21:59	0°♂	
	4611 Dec 21 19:31	0°♂			4616 Nov 16 10:34	0°♂	
					4617 Jan 09 07:28	0°♂	
conjunction	4611 Dec 24 02:10	1°♂34'11	0°-25'-10	retrograde	4617 Mar 24 16:18	22°♂57'52	
minimum elong	4611 Dec 24 01:14	1°♂32'35	0°25'11	opposition	4617 May 03 04:12	13°♂46'00	2°01'24
	4612 Feb 02 08:02	0°♂		greatest brilliancy	4617 May 03 12:10	13°♂38'11	-1.3m
morning rise	4612 Feb 11 19:20	6°♂52'37		min. Earth dist.	4617 May 06 09:43	12°♂29'59	0.66273 AU
	4612 Mar 14 00:20	0°♂		direct	4617 Jun 13 16:41	3°♂43'17	
	4612 Apr 22 08:59	0°♂		desc. node	4617 Jun 30 03:31	5°♂17'22	
	4612 May 31 02:36	0°♂			4617 Sep 01 00:54	0°♂	
	4612 Jul 09 02:39	0°♂			4617 Oct 20 23:50	0°♂	
	4612 Aug 18 12:57	0°♂			4617 Dec 03 09:32	0°♂	
asc. node	4612 Sep 16 20:08	20°♂29'35			4618 Jan 12 12:48	0°♂	
	4612 Oct 01 04:41	0°♂			4618 Feb 20 00:14	0°♂	
	4612 Nov 22 12:00	0°♂			4618 Mar 30 00:38	0°♂	
retrograde	4613 Jan 14 23:11	14°♂51'44		evening set	4618 Apr 24 14:28	19°♂59'08	
min. Earth dist.	4613 Feb 19 10:02	6°♂41'14	0.62469 AU		4618 May 07 14:11	0°♂	
opposition	4613 Feb 23 21:15	4°♂54'21	4°43'10	asc. node	4618 May 09 18:10	1°♂39'31	
greatest brilliancy	4613 Feb 22 21:00	5°♂18'33	-1.5m		4618 Jun 16 12:29	0°♂	
	4613 Mar 09 05:39	30°♂08'45					
direct	4613 Apr 03 04:08	25°♂57'05		conjunction	4618 Jun 28 17:20	8°♂54'17	0°31'54
	4613 Apr 30 15:38	0°♂		minimum elong	4618 Jun 28 15:17	8°♂50'33	0°31'52
	4613 Jul 09 07:08	0°♂			4618 Jul 28 08:46	0°♂	
	4613 Aug 31 04:25	0°♂		max. Earth dist.	4618 Aug 07 22:28	7°♂20'36	2.51409 AU
desc. node	4613 Sep 25 05:49	15°♂19'56		morning rise	4618 Aug 25 12:43	19°♂21'49	
	4613 Oct 18 07:32	0°♂			4618 Sep 10 09:34	0°♂	
	4613 Dec 02 03:30	0°♂			4618 Oct 26 16:41	0°♂	
evening set	4613 Dec 18 09:03	11°♂21'01			4618 Dec 14 14:02	0°♂	
max. Earth dist.	4614 Jan 01 13:26	21°♂28'43	2.45856 AU		4619 Feb 06 02:36	0°♂	
	4614 Jan 13 06:59	0°♂		retrograde	4619 May 03 19:28	28°♂48'12	
				desc. node	4619 May 18 01:59	27°♂31'14	
conjunction	4614 Feb 10 06:18	20°♂48'45	-1°-2'-14	opposition	4619 Jun 10 03:07	20°♂37'48	0°-56'-6
minimum elong	4614 Feb 10 05:06	20°♂46'30	1°02'13	greatest brilliancy	4619 Jun 10 11:13	20°♂30'11	-1.6m
	4614 Feb 22 08:21	0°♂		min. Earth dist.	4619 Jun 16 22:00	18°♂04'53	0.58429 AU
	4614 Apr 02 01:05	0°♂		direct	4619 Jul 20 18:06	10°♂54'45	
morning rise	4614 Apr 14 01:04	9°♂25'19			4619 Sep 20 20:12	0°♂	
greatest brilliancy	4614 May 06 14:21	27°♂10'14	1.2m		4619 Nov 09 03:58	0°♂	
	4614 May 10 04:42	0°♂			4619 Dec 21 02:10	0°♂	
	4614 Jun 17 16:11	0°♂			4620 Jan 29 09:31	0°♂	
	4614 Jul 27 09:18	0°♂			4620 Mar 08 00:26	0°♂	
asc. node	4614 Aug 04 19:18	6°♂10'44		asc. node	4620 Mar 26 16:37	14°♂24'06	
	4614 Sep 07 06:48	0°♂			4620 Apr 16 04:31	0°♂	
	4614 Oct 22 16:41	0°♂			4620 May 26 18:21	0°♂	
	4614 Dec 14 10:39	0°♂		evening set	4620 Jun 25 02:20	20°♂52'33	
retrograde	4615 Feb 18 19:47	19°♂55'59			4620 Jul 08 05:20	0°♂	
opposition	4615 Mar 31 03:07	10°♂08'35	3°54'46				
greatest brilliancy	4615 Mar 31 00:01	10°♂11'41	-1.2m	conjunction	4620 Aug 17 19:44	27°♂27'42	1°05'57
min. Earth dist.	4615 Mar 30 12:35	10°♂23'06	0.67673 AU	minimum elong	4620 Aug 17 19:01	27°♂26'31	1°05'57
direct	4615 May 10 17:28	0°♂25'02			4620 Aug 21 15:42	0°♂	
	4615 Aug 06 20:32	0°♂		max. Earth dist.	4620 Sep 06 16:06	10°♂31'39	2.61964 AU
desc. node	4615 Aug 13 04:37	3°♂22'58		morning rise	4620 Oct 05 12:06	29°♂10'19	
	4615 Sep 27 18:54	0°♂			4620 Oct 06 19:08	0°♂	
	4615 Nov 12 16:16	0°♂			4620 Nov 23 06:41	0°♂	
	4615 Dec 24 22:52	0°♂			4621 Jan 11 00:21	0°♂	

	4621 Mar 02 22:33	0°☾			4626 Jun 21 21:05	0°♊	
desc. node	4621 Apr 04 00:55	17°☾27'40			4626 Aug 10 19:54	0°♊	
	4621 Apr 30 02:21	0°♊			4626 Sep 28 06:02	0°♊	
retrograde	4621 Jun 25 21:34	14°♊54'22		evening set	4626 Oct 23 08:27	15°♊58'00	
opposition	4621 Jul 29 06:02	8°♊30'47	-5°-1'-55		4626 Nov 13 23:31	0°♊	
greatest brilliancy	4621 Jul 31 06:10	7°♊51'12	-2.3m	max. Earth dist.	4626 Nov 16 08:09	1°♊32'52	2.61492 AU
min. Earth dist.	4621 Aug 06 15:47	5°♊46'20	0.45633 AU	desc. node	4626 Nov 24 21:53	7°♊12'01	
direct	4621 Sep 03 14:36	0°♊42'54					
	4621 Nov 18 14:11	0°♊		conjunction	4626 Dec 08 04:28	16°♊02'50	0°-7'-22
	4622 Jan 01 19:14	0°♊		minimum elong	4626 Dec 08 04:12	16°♊02'23	0°07'23
asc. node	4622 Feb 11 16:14	29°♊49'18		behind sun begin	4626 Dec 07 10:38	15°♊32'57	
	4622 Feb 11 22:03	0°♊		behind sun end	4626 Dec 08 21:46	16°♊31'49	
	4622 Mar 24 21:20	0°♊			4626 Dec 28 18:26	0°☾	
	4622 May 05 22:50	0°☾		morning rise	4627 Jan 24 06:16	18°☾24'04	
	4622 Jun 18 15:12	0°♊			4627 Feb 09 14:21	0°♊	
	4622 Aug 02 23:00	0°♊			4627 Mar 22 16:32	0°♊	
evening set	4622 Aug 10 08:32	4°♊48'38			4627 May 01 11:32	0°♊	
	4622 Sep 18 12:20	0°♊			4627 Jun 09 15:01	0°♊	
					4627 Jul 19 01:24	0°♊	
conjunction	4622 Sep 26 20:08	5°♊18'41	1°02'00		4627 Aug 29 04:45	0°☾	
minimum elong	4622 Sep 26 20:59	5°♊20'02	1°02'00	asc. node	4627 Oct 04 14:02	24°☾17'46	
max. Earth dist.	4622 Oct 01 04:36	8°♊05'04	2.67255 AU		4627 Oct 13 21:31	0°♊	
	4622 Nov 04 16:02	0°♊		retrograde	4628 Jan 01 07:32	29°♊38'02	
morning rise	4622 Nov 10 13:53	3°♊45'17		min. Earth dist.	4628 Feb 03 17:42	22°♊09'15	0.58676 AU
	4622 Dec 21 20:04	0°♊		greatest brilliancy	4628 Feb 08 08:15	20°♊20'31	-1.6m
	4623 Feb 06 18:09	0°☾		opposition	4628 Feb 09 16:17	19°♊48'54	4°37'02
desc. node	4623 Feb 20 00:38	8°☾30'20		direct	4628 Mar 17 16:11	11°♊19'15	
	4623 Mar 25 13:52	0°♊			4628 May 22 09:42	0°♊	
	4623 May 11 23:06	0°♊			4628 Jul 19 00:37	0°♊	
	4623 Jul 01 09:39	0°♊			4628 Sep 07 22:46	0°♊	
retrograde	4623 Sep 12 12:23	25°♊20'46		desc. node	4628 Oct 11 20:20	21°♊12'23	
opposition	4623 Oct 12 15:06	20°♊18'35	-5°-13'-48		4628 Oct 25 11:23	0°♊	
min. Earth dist.	4623 Oct 11 22:47	20°♊29'22	0.36986 AU	evening set	4628 Nov 30 21:01	24°♊17'02	
greatest brilliancy	4623 Oct 12 16:13	20°♊17'51	-2.9m		4628 Dec 09 04:39	0°☾	
direct	4623 Nov 11 01:52	15°♊24'50		max. Earth dist.	4628 Dec 15 21:44	4°☾39'24	2.50963 AU
asc. node	4623 Dec 30 14:46	28°♊59'40					
	4624 Jan 01 17:04	0°♊		conjunction	4629 Jan 20 06:43	29°☾52'26	0°-51'-2
	4624 Feb 23 10:23	0°♊		minimum elong	4629 Jan 20 05:05	29°☾49'28	0°51'02
	4624 Apr 10 15:04	0°☾			4629 Jan 20 10:52	0°♊	
	4624 May 27 07:56	0°♊			4629 Mar 01 17:17	0°♊	
	4624 Jul 13 12:35	0°♊		morning rise	4629 Mar 17 17:33	12°♊14'50	
	4624 Aug 30 02:49	0°♊			4629 Apr 09 15:19	0°♊	
evening set	4624 Sep 16 19:35	11°♊09'26			4629 May 17 23:23	0°♊	
	4624 Oct 16 13:23	0°♊			4629 Jun 25 14:12	0°♊	
max. Earth dist.	4624 Oct 22 19:49	3°♊59'41	2.67078 AU		4629 Aug 04 10:55	0°☾	
				asc. node	4629 Aug 21 12:44	12°☾23'04	
conjunction	4624 Oct 31 23:35	9°♊50'50	0°34'28		4629 Sep 15 17:13	0°♊	
minimum elong	4624 Nov 01 00:31	9°♊52'19	0°34'28		4629 Nov 01 09:15	0°♊	
	4624 Dec 02 04:52	0°♊			4629 Dec 31 19:47	0°♊	
morning rise	4624 Dec 15 03:03	8°♊26'53		retrograde	4630 Feb 05 12:59	6°♊59'05	
desc. node	4625 Jan 06 23:27	23°♊33'18			4630 Mar 10 09:53	30°♊	
	4625 Jan 16 14:49	0°☾		min. Earth dist.	4630 Mar 15 16:52	27°♊55'10	0.66398 AU
	4625 Mar 01 15:50	0°♊		opposition	4630 Mar 17 19:58	27°♊03'59	4°22'25
	4625 Apr 13 09:33	0°♊		greatest brilliancy	4630 Mar 17 09:03	27°♊14'55	-1.3m
	4625 May 25 03:13	0°♊		direct	4630 Apr 26 16:13	17°♊35'15	
	4625 Jul 05 14:15	0°♊			4630 Jun 17 16:09	0°♊	
	4625 Aug 17 15:28	0°♊			4630 Aug 16 21:41	0°♊	
	4625 Oct 08 17:29	0°☾		desc. node	4630 Aug 29 19:22	7°♊25'06	
asc. node	4625 Nov 16 13:57	9°☾51'00			4630 Oct 05 19:29	0°♊	
retrograde	4625 Nov 17 09:19	9°☾51'17			4630 Nov 20 03:46	0°☾	
min. Earth dist.	4625 Dec 15 02:39	4°☾32'44	0.45829 AU		4631 Jan 01 07:56	0°♊	
greatest brilliancy	4625 Dec 22 11:35	1°☾58'48	-2.4m	evening set	4631 Jan 19 05:51	13°♊18'00	
opposition	4625 Dec 23 12:42	1°☾36'48	2°08'29		4631 Feb 10 05:15	0°♊	
	4625 Dec 28 06:02	30°♊		max. Earth dist.	4631 Feb 17 05:08	5°♊23'34	2.38156 AU
direct	4626 Jan 25 06:07	24°♊55'27			4631 Mar 20 16:49	0°♊	
	4626 Feb 24 00:52	0°☾					
	4626 Apr 30 09:50	0°♊		conjunction	4631 Mar 21 22:15	0°♊57'58	-1°00'-17

minimum elong	4631 Mar 22 00:25	1°Υ02'14	1°00'17			4636 Mar 15 04:36	0°Θ	
	4631 Apr 27 16:21	0°Ϡ		desc. node		4636 Apr 20 16:12	16°Θ10'11	
morning rise	4631 Jun 01 05:42	27°Ϡ02'55		retrograde		4636 Jun 02 06:37	25°Θ06'06	
	4631 Jun 05 01:17	0°Π		opposition		4636 Jul 07 09:25	17°Θ53'46	-3°-21'-21
asc. node	4631 Jul 09 11:05	26°Π07'49		greatest brilliancy		4636 Jul 08 19:13	17°Θ23'51	-2.0m
	4631 Jul 14 16:05	0°Ϡ		min. Earth dist.		4636 Jul 15 16:47	14°Θ58'11	0.50964 AU
	4631 Aug 25 07:07	0°Ω		direct		4636 Aug 14 23:37	9°Θ03'10	
	4631 Oct 08 17:00	0°η				4636 Oct 17 04:36	0°≈	
	4631 Nov 26 08:19	0°⊲				4636 Dec 03 00:11	0°Ϡ	
	4632 Jan 25 04:27	0°ℳ				4637 Jan 13 01:35	0°Υ	
retrograde	4632 Mar 10 20:08	10°ℳ14'45				4637 Feb 21 17:23	0°Ϡ	
opposition	4632 Apr 19 18:49	0°ℳ46'24	2°52'15	asc. node		4637 Feb 28 07:43	4°Ϡ59'26	
greatest brilliancy	4632 Apr 20 00:26	0°ℳ40'49	-1.2m			4637 Apr 02 17:11	0°Π	
	4632 Apr 21 17:41	30°ℳ⊲				4637 May 14 00:18	0°Ϡ	
min. Earth dist.	4632 Apr 21 12:16	0°ℳ05'21	0.67605 AU			4637 Jun 26 02:15	0°Ω	
direct	4632 May 31 02:37	20°⊲47'58		evening set		4637 Jul 24 17:14	19°Ω15'33	
	4632 Jul 13 07:52	0°ℳ				4637 Aug 09 23:29	0°η	
desc. node	4632 Jul 16 18:17	1°ℳ19'10						
	4632 Sep 11 22:01	0°Ϡ		conjunction		4637 Sep 12 01:36	21°η30'04	1°06'57
	4632 Oct 29 14:35	0°Θ		minimum elong		4637 Sep 12 02:01	21°η30'45	1°06'57
	4632 Dec 11 09:48	0°≈		max. Earth dist.		4637 Sep 22 02:02	27°η56'18	2.65841 AU
	4633 Jan 20 08:40	0°Ϡ				4637 Sep 25 07:15	0°⊲	
	4633 Feb 27 18:18	0°Υ		morning rise		4637 Oct 27 21:09	20°⊲44'58	
evening set	4633 Mar 26 17:50	21°Υ20'43				4637 Nov 11 11:52	0°ℳ	
	4633 Apr 06 16:49	0°Ϡ				4637 Dec 29 02:21	0°Ϡ	
	4633 May 15 03:23	0°Π				4638 Feb 15 02:18	0°Θ	
asc. node	4633 May 26 11:13	8°Π40'18		desc. node		4638 Mar 08 15:02	13°Θ17'18	
						4638 Apr 05 04:40	0°≈	
conjunction	4633 Jun 03 12:16	14°Π46'16	0°05'31			4638 May 28 03:49	0°Ϡ	
minimum elong	4633 Jun 03 11:45	14°Π45'18	0°05'30	retrograde		4638 Aug 10 15:50	24°Ϡ27'02	
behind sun begin	4633 Jun 02 09:01	13°Π54'49		opposition		4638 Sep 10 01:14	19°Ϡ20'15	-6°-34'-43
behind sun end	4633 Jun 04 14:29	15°Π35'44		greatest brilliancy		4638 Sep 11 13:25	18°Ϡ55'05	-2.8m
	4633 Jun 23 21:39	0°Ϡ		min. Earth dist.		4638 Sep 14 19:26	18°Ϡ01'03	0.38613 AU
max. Earth dist.	4633 Jul 22 03:28	20°Ϡ29'39	2.46117 AU	direct		4638 Oct 11 17:28	13°Ϡ40'52	
	4633 Aug 04 14:10	0°Ω				4638 Dec 04 07:09	0°Υ	
morning rise	4633 Aug 05 18:41	0°Ω49'57		asc. node		4639 Jan 16 07:52	25°Υ43'04	
	4633 Sep 17 13:44	0°η				4639 Jan 22 20:57	0°Ϡ	
	4633 Nov 03 03:27	0°⊲				4639 Mar 08 09:02	0°Π	
	4633 Dec 23 04:36	0°ℳ				4639 Apr 21 13:22	0°Ϡ	
	4634 Feb 19 19:02	0°Ϡ				4639 Jun 05 15:56	0°Ω	
retrograde	4634 Apr 17 03:42	14°Ϡ21'07				4639 Jul 21 22:14	0°η	
opposition	4634 May 25 12:16	5°Ϡ42'44	0°21'14	evening set		4639 Sep 03 09:10	27°η41'42	
greatest brilliancy	4634 May 25 15:00	5°Ϡ40'07	-1.5m			4639 Sep 07 00:21	0°⊲	
min. Earth dist.	4634 May 30 23:17	3°Ϡ36'57	0.62222 AU	max. Earth dist.		4639 Oct 15 01:08	24°⊲07'44	2.67797 AU
desc. node	4634 Jun 03 17:17	2°Ϡ12'49						
	4634 Jun 10 04:00	30°ℳℳ		conjunction		4639 Oct 19 02:07	26°⊲41'52	0°47'16
direct	4634 Jul 05 18:03	25°ℳ45'18		minimum elong		4639 Oct 19 03:11	26°⊲43'34	0°47'16
	4634 Aug 02 01:03	0°Ϡ				4639 Oct 24 06:40	0°ℳ	
	4634 Oct 04 10:54	0°Θ		morning rise		4639 Dec 02 02:24	24°ℳ51'50	
	4634 Nov 19 03:14	0°≈				4639 Dec 10 01:14	0°Ϡ	
	4634 Dec 30 01:07	0°Ϡ		desc. node		4640 Jan 24 13:56	29°Ϡ46'26	
	4635 Feb 06 21:19	0°Υ				4640 Jan 24 22:09	0°Θ	
	4635 Mar 17 04:22	0°Ϡ				4640 Mar 09 18:24	0°≈	
asc. node	4635 Apr 13 09:42	21°Ϡ06'17				4640 Apr 22 16:32	0°Ϡ	
	4635 Apr 25 00:55	0°Π				4640 Jun 05 01:56	0°Υ	
evening set	4635 Jun 04 02:40	29°Π52'22				4640 Jul 19 04:37	0°Ϡ	
	4635 Jun 04 06:51	0°Ϡ				4640 Sep 07 09:29	0°Π	
	4635 Jul 16 10:24	0°Ω		retrograde		4640 Oct 25 18:47	13°Π59'35	
conjunction	4635 Jul 31 18:56	10°Ω34'51	0°58'14	min. Earth dist.		4640 Nov 21 05:16	9°Π23'26	0.40820 AU
minimum elong	4635 Jul 31 17:22	10°Ω32'09	0°58'14	opposition		4640 Nov 28 13:21	7°Π05'35	0°-19'-4
max. Earth dist.	4635 Aug 27 23:38	28°Ω54'22	2.58412 AU	greatest brilliancy		4640 Nov 28 22:52	6°Π58'09	-2.7m
	4635 Aug 29 15:09	0°η		asc. node		4640 Dec 03 07:49	5°Π38'05	
morning rise	4635 Sep 21 05:55	14°η51'37		direct		4640 Dec 29 06:29	1°Π21'20	
	4635 Oct 14 17:44	0°⊲				4641 Mar 20 16:31	0°Ϡ	
	4635 Dec 01 13:45	0°ℳ				4641 May 11 20:31	0°Ω	
	4636 Jan 20 12:06	0°Ϡ				4641 Jun 30 10:12	0°η	
						4641 Aug 18 04:47	0°⊲	

	4641 Oct 05 03:19	0°♄			4646 May 05 07:11	0°♄		
evening set	4641 Oct 09 02:13	2°♄30'28			4646 Jun 12 17:24	0°♄		
max. Earth dist.	4641 Nov 06 11:24	20°♄41'36	2.64303 AU		4646 Jul 22 08:40	0°♄		
	4641 Nov 20 18:39	0°♄		asc. node	4646 Jul 26 04:26	2°♄49'21		
					4646 Sep 02 02:07	0°♄		
conjunction	4641 Nov 23 07:21	1°♄39'21	0°09'58		4646 Oct 16 23:21	0°♄		
minimum elong	4641 Nov 23 07:40	1°♄39'52	0°09'59		4646 Dec 06 14:07	0°♄		
behind sun begin	4641 Nov 22 16:34	1°♄15'09		retrograde	4647 Feb 26 10:18	27°♄38'52		
behind sun end	4641 Nov 23 22:45	2°♄04'35		opposition	4647 Apr 07 15:27	17°♄57'12	3°34'16	
desc. node	4641 Dec 11 12:25	13°♄41'16		greatest brilliancy	4647 Apr 07 15:59	17°♄56'39	-1.2m	
	4642 Jan 04 18:08	0°♄		min. Earth dist.	4647 Apr 07 20:37	17°♄52'02	0.67931 AU	
morning rise	4642 Jan 07 16:54	2°♄00'35		direct	4647 May 18 13:17	8°♄07'18		
	4642 Feb 16 23:17	0°♄			4647 Jul 30 05:09	0°♄		
	4642 Mar 30 13:43	0°♄		desc. node	4647 Aug 03 09:33	2°♄04'23		
	4642 May 09 22:04	0°♄			4647 Sep 22 04:46	0°♄		
	4642 Jun 18 15:37	0°♄			4647 Nov 07 15:28	0°♄		
	4642 Jul 28 19:36	0°♄			4647 Dec 20 02:17	0°♄		
	4642 Sep 09 09:28	0°♄			4648 Jan 28 23:20	0°♄		
asc. node	4642 Oct 21 06:02	25°♄17'31		evening set	4648 Feb 27 08:00	22°♄52'53		
	4642 Oct 30 16:58	0°♄			4648 Mar 07 08:42	0°♄		
retrograde	4642 Dec 16 09:10	12°♄34'55			4648 Apr 14 06:38	0°♄		
min. Earth dist.	4643 Jan 16 14:40	5°♄53'37	0.54065 AU					
greatest brilliancy	4643 Jan 22 08:25	3°♄41'49	-1.9m	conjunction	4648 May 06 02:00	17°♄08'16	0°-25'-1	
opposition	4643 Jan 23 20:51	3°♄06'45	4°08'13	minimum elong	4648 May 06 04:25	17°♄13'01	0°25'01	
	4643 Feb 01 09:21	30°♄			4648 May 22 15:34	0°♄		
direct	4643 Feb 28 08:49	25°♄12'01		asc. node	4648 Jun 12 02:28	15°♄37'50		
	4643 Mar 29 21:46	0°♄		max. Earth dist.	4648 Jun 26 23:39	26°♄47'50	2.40663 AU	
	4643 Jun 05 10:20	0°♄			4648 Jul 01 07:14	0°♄		
	4643 Jul 28 16:25	0°♄		morning rise	4648 Jul 13 21:52	9°♄15'43		
	4643 Sep 16 08:21	0°♄			4648 Aug 11 21:29	0°♄		
desc. node	4643 Oct 29 10:55	27°♄22'59			4648 Sep 24 22:02	0°♄		
	4643 Nov 02 11:16	0°♄			4648 Nov 10 23:08	0°♄		
evening set	4643 Nov 15 18:45	8°♄46'00			4649 Jan 01 22:16	0°♄		
max. Earth dist.	4643 Dec 03 17:45	20°♄48'51	2.55616 AU		4649 Mar 20 16:28	0°♄		
	4643 Dec 17 04:15	0°♄		retrograde	4649 Apr 01 22:21	0°♄51'51		
					4649 Apr 13 15:11	30°♄		
conjunction	4644 Jan 02 18:50	11°♄33'31	0°-35'-16	opposition	4649 May 11 01:45	21°♄50'38	1°27'20	
minimum elong	4644 Jan 02 17:33	11°♄31'16	0°35'16	greatest brilliancy	4649 May 11 09:14	21°♄43'21	-1.3m	
	4644 Jan 28 14:59	0°♄		min. Earth dist.	4649 May 15 02:14	20°♄16'33	0.65117 AU	
morning rise	4644 Feb 23 10:57	18°♄58'22		desc. node	4649 Jun 20 07:58	11°♄48'30		
	4644 Mar 09 04:07	0°♄		direct	4649 Jun 21 13:42	11°♄47'55		
	4644 Apr 17 08:54	0°♄			4649 Aug 23 12:02	0°♄		
	4644 May 25 22:42	0°♄			4649 Oct 15 00:20	0°♄		
	4644 Jul 03 18:23	0°♄			4649 Nov 28 01:30	0°♄		
	4644 Aug 12 21:29	0°♄			4650 Jan 07 10:31	0°♄		
asc. node	4644 Sep 07 05:09	18°♄01'21			4650 Feb 15 00:21	0°♄		
	4644 Sep 24 19:52	0°♄			4650 Mar 25 02:16	0°♄		
	4644 Nov 13 00:25	0°♄		asc. node	4650 Apr 30 02:14	27°♄59'16		
retrograde	4645 Jan 22 23:29	23°♄27'52			4650 May 02 17:15	0°♄		
min. Earth dist.	4645 Feb 28 10:46	14°♄56'57	0.64140 AU	evening set	4650 May 10 01:18	5°♄35'50		
greatest brilliancy	4645 Mar 03 06:46	13°♄48'56	-1.4m		4650 Jun 11 16:55	0°♄		
opposition	4645 Mar 04 02:17	13°♄29'24	4°39'27					
direct	4645 Apr 11 23:50	4°♄19'36		conjunction	4650 Jul 11 12:39	21°♄30'22	0°43'43	
	4645 Jul 01 23:09	0°♄		minimum elong	4650 Jul 11 10:29	21°♄26'31	0°43'42	
	4645 Aug 25 17:02	0°♄			4650 Jul 23 14:31	0°♄		
desc. node	4645 Sep 15 10:04	12°♄26'20		max. Earth dist.	4650 Aug 16 00:40	16°♄08'26	2.54098 AU	
	4645 Oct 13 09:27	0°♄		morning rise	4650 Sep 04 18:10	29°♄24'44		
	4645 Nov 27 09:48	0°♄			4650 Sep 05 15:22	0°♄		
evening set	4645 Dec 29 05:44	22°♄28'57			4650 Oct 21 19:22	0°♄		
	4646 Jan 08 13:48	0°♄			4650 Dec 09 04:37	0°♄		
max. Earth dist.	4646 Jan 14 03:24	4°♄05'25	2.42938 AU		4651 Jan 29 23:45	0°♄		
	4646 Feb 17 14:04	0°♄			4651 Apr 03 14:25	0°♄		
				desc. node	4651 May 08 06:25	7°♄54'40		
conjunction	4646 Feb 23 14:35	4°♄37'24	-1°-5'-2	retrograde	4651 May 14 03:45	8°♄06'59		
minimum elong	4646 Feb 23 14:16	4°♄36'47	1°05'03	opposition	4651 Jun 19 18:13	0°♄14'56	-1°-46'-8	
	4646 Mar 28 05:05	0°♄		greatest brilliancy	4651 Jun 20 10:46	29°♄59'38	-1.8m	
morning rise	4646 May 01 02:10	26°♄41'09			4651 Jun 20 10:23	30°♄		

min. Earth dist.	4651 Jun 27 04:07	27° \mathbb{A} 30'46	0.55968 AU	conjunction	4656 Nov 09 00:27	17° \mathbb{M} 58'34	0°25'57
direct	4651 Jul 29 19:33	20° \mathbb{A} 45'40		minimum elong	4656 Nov 09 01:13	17° \mathbb{M} 59'47	0°25'57
	4651 Sep 08 06:50	0° \mathbb{C}			4656 Nov 27 13:26	0° \mathbb{A}	
	4651 Nov 01 23:30	0° \approx		morning rise	4656 Dec 23 10:57	17° \mathbb{A} 02'47	
	4651 Dec 15 00:19	0° \mathbb{H}		desc. node	4656 Dec 28 03:25	20° \mathbb{A} 09'55	
	4652 Jan 23 18:37	0° \mathbb{Y}			4657 Jan 11 19:28	0° \mathbb{C}	
	4652 Mar 02 16:09	0° \mathbb{B}			4657 Feb 24 12:48	0° \approx	
asc. node	4652 Mar 17 01:45	11° \mathbb{B} 03'11			4657 Apr 07 19:47	0° \mathbb{H}	
	4652 Apr 11 01:28	0° \mathbb{II}			4657 May 18 23:26	0° \mathbb{Y}	
	4652 May 21 19:35	0° \mathbb{S}			4657 Jun 28 15:34	0° \mathbb{B}	
	4652 Jul 03 10:17	0° \mathbb{O}			4657 Aug 09 05:06	0° \mathbb{II}	
evening set	4652 Jul 06 09:41	2° \mathbb{O} 02'39			4657 Sep 24 08:38	0° \mathbb{S}	
	4652 Aug 16 23:02	0° \mathbb{M}		asc. node	4657 Nov 06 23:27	19° \mathbb{S} 45'24	
				retrograde	4657 Nov 28 14:24	22° \mathbb{S} 55'27	
conjunction	4652 Aug 27 08:34	6° \mathbb{M} 50'20	1°07'44	min. Earth dist.	4657 Dec 27 12:15	17° \mathbb{S} 07'08	0.48817 AU
minimum elong	4652 Aug 27 08:20	6° \mathbb{M} 49'57	1°07'44	greatest brilliancy	4658 Jan 03 08:12	14° \mathbb{S} 38'12	-2.2m
max. Earth dist.	4652 Sep 12 12:46	17° \mathbb{M} 22'47	2.63563 AU	opposition	4658 Jan 04 17:21	14° \mathbb{S} 07'50	3°05'35
	4652 Oct 02 02:53	0° \mathbb{A}		direct	4658 Feb 07 12:12	6° \mathbb{S} 57'33	
morning rise	4652 Oct 13 20:09	7° \mathbb{A} 29'20			4658 Apr 21 11:24	0° \mathbb{O}	
	4652 Nov 18 10:41	0° \mathbb{M}			4658 Jun 15 18:50	0° \mathbb{M}	
	4653 Jan 05 16:22	0° \mathbb{A}			4658 Aug 05 16:15	0° \mathbb{A}	
	4653 Feb 24 06:37	0° \mathbb{C}			4658 Sep 23 11:50	0° \mathbb{M}	
desc. node	4653 Mar 25 05:32	16° \mathbb{C} 44'48		evening set	4658 Oct 31 15:50	24° \mathbb{M} 19'47	
	4653 Apr 18 13:43	0° \approx			4658 Nov 09 08:37	0° \mathbb{A}	
retrograde	4653 Jul 11 03:58	28° \approx 09'38		desc. node	4658 Nov 15 02:25	3° \mathbb{A} 46'06	
opposition	4653 Aug 12 08:30	22° \approx 16'14	-5°-52'-28	max. Earth dist.	4658 Nov 22 08:06	8° \mathbb{A} 33'00	2.59596 AU
greatest brilliancy	4653 Aug 14 11:40	21° \approx 36'35	-2.5m				
min. Earth dist.	4653 Aug 20 04:50	19° \approx 51'17	0.42776 AU	conjunction	4658 Dec 17 02:15	25° \mathbb{A} 11'22	0°-17'-41
direct	4653 Sep 16 03:45	15° \approx 13'12		minimum elong	4658 Dec 17 01:36	25° \mathbb{A} 10'17	0°17'41
	4653 Nov 05 11:05	0° \mathbb{H}			4658 Dec 24 03:07	0° \mathbb{C}	
	4653 Dec 24 11:02	0° \mathbb{Y}		morning rise	4659 Feb 03 11:56	29° \mathbb{C} 02'54	
asc. node	4654 Feb 02 00:12	27° \mathbb{Y} 47'44			4659 Feb 04 19:44	0° \approx	
	4654 Feb 05 01:57	0° \mathbb{B}			4659 Mar 17 17:07	0° \mathbb{H}	
	4654 Mar 18 21:15	0° \mathbb{II}			4659 Apr 26 06:32	0° \mathbb{Y}	
	4654 Apr 30 11:59	0° \mathbb{S}			4659 Jun 04 04:14	0° \mathbb{B}	
	4654 Jun 13 13:48	0° \mathbb{O}			4659 Jul 13 07:55	0° \mathbb{II}	
	4654 Jul 29 03:49	0° \mathbb{M}			4659 Aug 22 23:04	0° \mathbb{S}	
evening set	4654 Aug 19 07:56	13° \mathbb{M} 39'54		asc. node	4659 Sep 24 21:14	22° \mathbb{S} 41'15	
	4654 Sep 13 20:40	0° \mathbb{A}			4659 Oct 06 04:57	0° \mathbb{O}	
					4659 Dec 01 02:28	0° \mathbb{M}	
conjunction	4654 Oct 05 01:06	13° \mathbb{A} 29'09	0°57'27	retrograde	4660 Jan 09 19:21	8° \mathbb{M} 58'13	
minimum elong	4654 Oct 05 02:05	13° \mathbb{A} 30'43	0°57'27	min. Earth dist.	4660 Feb 13 09:11	1° \mathbb{M} 05'37	0.60894 AU
max. Earth dist.	4654 Oct 06 09:28	14° \mathbb{A} 20'36	2.67672 AU		4660 Feb 16 03:23	30° \mathbb{R} \mathbb{O}	
	4654 Oct 31 00:31	0° \mathbb{M}		greatest brilliancy	4660 Feb 17 08:29	29° \mathbb{O} 31'02	-1.5m
morning rise	4654 Nov 18 09:32	11° \mathbb{M} 42'03		opposition	4660 Feb 18 12:30	29° \mathbb{O} 03'10	4°43'06
	4654 Dec 17 00:28	0° \mathbb{A}		direct	4660 Mar 27 06:08	20° \mathbb{O} 17'35	
	4655 Feb 01 12:20	0° \mathbb{C}			4660 May 10 22:47	0° \mathbb{M}	
desc. node	4655 Feb 10 04:27	5° \mathbb{C} 38'12			4660 Jul 12 18:24	0° \mathbb{A}	
	4655 Mar 19 11:47	0° \approx			4660 Sep 02 18:51	0° \mathbb{M}	
	4655 May 04 06:39	0° \mathbb{H}		desc. node	4660 Oct 02 01:07	18° \mathbb{M} 04'18	
	4655 Jun 19 21:44	0° \mathbb{Y}			4660 Oct 20 16:42	0° \mathbb{A}	
	4655 Aug 11 10:11	0° \mathbb{B}			4660 Dec 04 12:58	0° \mathbb{C}	
retrograde	4655 Sep 29 20:14	13° \mathbb{B} 48'22		evening set	4660 Dec 10 13:57	4° \mathbb{C} 11'16	
min. Earth dist.	4655 Oct 27 05:47	9° \mathbb{B} 18'57	0.37520 AU	max. Earth dist.	4660 Dec 24 20:07	14° \mathbb{C} 12'21	2.48192 AU
opposition	4655 Oct 30 21:18	8° \mathbb{B} 18'32	-3°-34'00		4661 Jan 15 18:49	0° \approx	
greatest brilliancy	4655 Oct 30 09:58	8° \mathbb{B} 26'23	-2.9m				
direct	4655 Nov 29 09:24	3° \mathbb{B} 19'39		conjunction	4661 Jan 31 18:16	11° \approx 46'07	0°-58'-14
asc. node	4655 Dec 20 23:28	6° \mathbb{B} 16'14		minimum elong	4661 Jan 31 16:45	11° \approx 43'18	0°58'14
	4656 Feb 12 23:21	0° \mathbb{II}			4661 Feb 24 23:21	0° \mathbb{H}	
	4656 Apr 03 12:03	0° \mathbb{S}		morning rise	4661 Apr 01 13:51	27° \mathbb{H} 29'50	
	4656 May 21 12:35	0° \mathbb{O}			4661 Apr 04 18:44	0° \mathbb{Y}	
	4656 Jul 08 09:12	0° \mathbb{M}			4661 May 13 00:05	0° \mathbb{B}	
	4656 Aug 25 08:02	0° \mathbb{A}			4661 Jun 20 12:21	0° \mathbb{II}	
evening set	4656 Sep 24 22:46	19° \mathbb{A} 14'50		greatest brilliancy	4661 Jun 27 23:51	5° \mathbb{II} 44'31	1.2m
	4656 Oct 11 22:15	0° \mathbb{M}			4661 Jul 30 05:36	0° \mathbb{S}	
max. Earth dist.	4656 Oct 28 01:36	10° \mathbb{M} 17'48	2.66306 AU	asc. node	4661 Aug 11 20:15	9° \mathbb{S} 13'31	
					4661 Sep 10 04:35	0° \mathbb{O}	

	4661 Oct 25 22:32	0°♎			4666 Dec 24 12:13	0°♏		
	4661 Dec 19 15:35	0°♐			4667 Feb 01 14:27	0°♑		
retrograde	4662 Feb 13 04:32	14°♐56'11			4667 Mar 12 01:12	0°♒		
min. Earth dist.	4662 Mar 24 05:03	5°♐35'51	0.67237 AU	asc. node	4667 Apr 03 17:39	17°♒33'08		
opposition	4662 Mar 25 12:12	5°♐04'41	4°07'28		4667 Apr 20 00:59	0°♓		
greatest brilliancy	4662 Mar 25 05:45	5°♐11'08	-1.2m		4667 May 30 09:55	0°♓		
	4662 Apr 08 01:36	30°♑♎		evening set	4667 Jun 16 21:56	12°♓35'50		
direct	4662 May 04 19:09	25°♑27'21			4667 Jul 11 16:09	0°♑		
	4662 Jun 03 06:43	0°♑						
	4662 Aug 10 11:55	0°♒		conjunction	4667 Aug 11 06:52	20°♑53'01	1°03'27	
desc. node	4662 Aug 19 23:59	5°♒14'58		minimum elong	4667 Aug 11 05:47	20°♑51'12	1°03'27	
	4662 Sep 30 13:26	0°♑			4667 Aug 24 22:39	0°♑		
	4662 Nov 15 06:39	0°♑		max. Earth dist.	4667 Sep 03 07:31	6°♑11'24	2.60472 AU	
	4662 Dec 27 13:28	0°♑		morning rise	4667 Sep 30 02:12	23°♑37'26		
evening set	4663 Feb 01 09:05	26°♑51'56			4667 Oct 10 00:30	0°♑		
	4663 Feb 05 11:09	0°♏			4667 Nov 26 14:22	0°♒		
	4663 Mar 15 22:07	0°♑			4668 Jan 14 18:17	0°♑		
					4668 Mar 06 22:52	0°♑		
conjunction	4663 Apr 07 02:16	17°♑31'36	0°-51'-8	desc. node	4668 Apr 10 19:59	17°♑46'53		
minimum elong	4663 Apr 07 05:32	17°♑38'04	0°51'08		4668 May 11 01:17	0°♑		
max. Earth dist.	4663 Apr 11 06:09	20°♑49'12	2.36835 AU	retrograde	4668 Jun 15 02:04	6°♑22'28		
	4663 Apr 22 20:50	0°♒			4668 Jul 18 02:30	30°♒♑		
	4663 May 31 05:12	0°♓		opposition	4668 Jul 19 06:58	29°♑35'54	-4°-18'-53	
morning rise	4663 Jun 17 23:05	13°♓36'06		greatest brilliancy	4668 Jul 21 01:51	28°♑59'18	-2.2m	
asc. node	4663 Jun 29 20:37	22°♓35'03		min. Earth dist.	4668 Jul 27 19:28	26°♑42'46	0.48035 AU	
	4663 Jul 09 19:12	0°♓		direct	4668 Aug 25 18:01	21°♑16'53		
	4663 Aug 20 08:18	0°♑			4668 Oct 02 16:17	0°♑		
	4663 Oct 03 12:23	0°♑			4668 Nov 24 21:24	0°♏		
	4663 Nov 20 08:24	0°♑			4669 Jan 06 09:46	0°♑		
	4664 Jan 14 21:22	0°♒			4669 Feb 15 18:05	0°♒		
retrograde	4664 Mar 18 17:14	17°♒58'42		asc. node	4669 Feb 18 17:14	2°♒12'53		
opposition	4664 Apr 27 10:06	8°♒38'52	2°23'31		4669 Mar 28 04:52	0°♓		
greatest brilliancy	4664 Apr 27 17:19	8°♒31'45	-1.3m		4669 May 08 20:14	0°♓		
min. Earth dist.	4664 Apr 29 23:06	7°♒38'44	0.67000 AU		4669 Jun 21 04:28	0°♑		
	4664 May 24 06:23	30°♒♑		evening set	4669 Aug 03 08:33	28°♑45'14		
direct	4664 Jun 07 20:53	28°♑37'30			4669 Aug 05 06:12	0°♑		
	4664 Jun 23 07:56	0°♒						
desc. node	4664 Jul 06 22:51	3°♒09'43		conjunction	4669 Sep 20 14:19	29°♑56'56	1°04'31	
	4664 Sep 05 03:53	0°♑		minimum elong	4669 Sep 20 15:01	29°♑58'04	1°04'30	
	4664 Oct 24 02:57	0°♑			4669 Sep 20 16:14	0°♑		
	4664 Dec 06 07:20	0°♑		max. Earth dist.	4669 Sep 27 10:06	4°♑18'39	2.66727 AU	
	4665 Jan 15 09:36	0°♏		morning rise	4669 Nov 04 18:00	28°♑41'08		
	4665 Feb 22 20:30	0°♑			4669 Nov 06 19:45	0°♒		
greatest brilliancy	4665 Feb 25 03:42	1°♑48'54	1.2m		4669 Dec 24 04:02	0°♑		
	4665 Apr 01 19:49	0°♒			4670 Feb 09 12:27	0°♑		
evening set	4665 Apr 12 02:21	8°♒04'31		desc. node	4670 Feb 26 19:51	10°♑56'22		
	4665 May 10 07:25	0°♓			4670 Mar 29 04:30	0°♑		
asc. node	4665 May 16 19:28	4°♓59'01			4670 May 17 09:01	0°♏		
					4670 Jul 12 21:15	0°♑		
conjunction	4665 Jun 18 03:52	29°♓17'46	0°21'23	retrograde	4670 Aug 29 03:09	11°♑53'22		
minimum elong	4665 Jun 18 02:14	29°♓14'44	0°21'21	opposition	4670 Sep 28 02:58	6°♑57'14	-6°-6'-36	
	4665 Jun 19 02:46	0°♓		greatest brilliancy	4670 Sep 28 19:49	6°♑46'02	-2.9m	
	4665 Jul 30 19:57	0°♑		min. Earth dist.	4670 Sep 30 00:33	6°♑27'00	0.37315 AU	
max. Earth dist.	4665 Aug 01 10:02	1°♑06'39	2.49097 AU	direct	4670 Oct 28 05:44	1°♑51'27		
morning rise	4665 Aug 17 07:24	12°♑07'18		asc. node	4671 Jan 06 16:10	26°♑52'43		
	4665 Sep 12 18:35	0°♑			4671 Jan 12 01:26	0°♒		
	4665 Oct 29 02:39	0°♑			4671 Feb 28 19:13	0°♓		
	4665 Dec 17 08:34	0°♒			4671 Apr 15 09:22	0°♓		
	4666 Feb 10 10:05	0°♑			4671 May 31 06:21	0°♑		
retrograde	4666 Apr 26 10:40	22°♑55'13			4671 Jul 16 23:33	0°♑		
desc. node	4666 May 24 21:07	17°♑54'13			4671 Sep 02 07:46	0°♑		
opposition	4666 Jun 03 05:45	14°♑31'24	0°-22'-13	evening set	4671 Sep 11 16:17	5°♑54'48		
greatest brilliancy	4666 Jun 03 08:43	14°♑28'36	-1.6m		4671 Oct 19 16:18	0°♒		
min. Earth dist.	4666 Jun 09 10:18	12°♑10'17	0.60246 AU	max. Earth dist.	4671 Oct 20 03:56	0°♒18'30	2.67507 AU	
direct	4666 Jul 14 04:10	4°♑40'30						
	4666 Sep 26 12:36	0°♑		conjunction	4671 Oct 27 00:42	4°♒40'56	0°40'05	
	4666 Nov 13 00:48	0°♑		minimum elong	4671 Oct 27 01:42	4°♒42'32	0°40'05	

	4671 Dec 05 09:33	0°♊			4677 Feb 15 22:18	30°♑	
morning rise	4671 Dec 10 01:13	3°♊01'27		min. Earth dist.	4677 Mar 09 05:21	22°♑57'32	0.65507 AU
desc. node	4672 Jan 14 18:31	26°♊29'59		greatest brilliancy	4677 Mar 11 10:27	22°♑04'20	-1.3m
	4672 Jan 20 00:48	0°♊		opposition	4677 Mar 12 01:12	21°♑49'34	4°31'04
	4672 Mar 04 10:25	0°♊		direct	4677 Apr 20 12:04	12°♑28'52	
	4672 Apr 16 16:08	0°♊			4677 Jun 23 09:02	0°♊	
	4672 May 29 01:00	0°♊			4677 Aug 19 22:40	0°♊	
	4672 Jul 10 09:31	0°♊		desc. node	4677 Sep 05 14:25	9°♊45'43	
	4672 Aug 24 06:45	0°♊			4677 Oct 08 08:48	0°♊	
retrograde	4672 Nov 08 02:29	29°♊38'43			4677 Nov 22 15:13	0°♊	
asc. node	4672 Nov 23 14:46	27°♊53'18			4678 Jan 03 20:33	0°♊	
min. Earth dist.	4672 Dec 05 00:30	24°♊41'52	0.43474 AU	evening set	4678 Jan 09 18:28	4°♊20'50	
opposition	4672 Dec 13 05:50	21°♊57'29	1°13'11	max. Earth dist.	4678 Jan 29 20:36	19°♊21'20	2.40146 AU
greatest brilliancy	4672 Dec 12 14:58	22°♊09'56	-2.5m		4678 Feb 12 20:06	0°♊	
direct	4673 Jan 14 02:01	15°♊41'20					
	4673 Mar 08 12:28	0°♊		conjunction	4678 Mar 09 23:23	19°♊28'20	-1°-4'-3
	4673 May 04 18:57	0°♊		minimum elong	4678 Mar 10 00:24	19°♊30'18	1°04'04
	4673 Jun 24 19:47	0°♊			4678 Mar 23 09:38	0°♊	
	4673 Aug 13 05:31	0°♊			4678 Apr 30 10:08	0°♊	
	4673 Sep 30 10:44	0°♊		morning rise	4678 May 18 15:29	14°♊19'20	
evening set	4673 Oct 17 05:08	10°♊38'34			4678 Jun 07 19:03	0°♊	
max. Earth dist.	4673 Nov 12 02:22	27°♊20'28	2.62856 AU	asc. node	4678 Jul 16 12:15	29°♊21'33	
	4673 Nov 16 04:02	0°♊			4678 Jul 17 08:58	0°♊	
					4678 Aug 27 23:14	0°♊	
conjunction	4673 Dec 01 16:47	10°♊13'55	0°00'00		4678 Oct 11 11:22	0°♊	
minimum elong	4673 Dec 01 16:48	10°♊13'56	0°00'01		4678 Nov 29 16:17	0°♊	
behind sun begin	4673 Dec 01 02:46	9°♊50'43			4679 Feb 02 10:59	0°♊	
behind sun end	4673 Dec 02 06:49	10°♊37'11		retrograde	4679 Mar 06 02:29	5°♊21'28	
desc. node	4673 Dec 01 16:50	10°♊14'00			4679 Apr 04 01:48	30°♑	
	4673 Dec 31 01:58	0°♊		opposition	4679 Apr 15 04:18	25°♑46'40	3°10'40
morning rise	4674 Jan 16 21:54	11°♊34'56		greatest brilliancy	4679 Apr 15 07:54	25°♑43'06	-1.2m
	4674 Feb 12 02:49	0°♊		min. Earth dist.	4679 Apr 16 05:09	25°♑21'58	0.67875 AU
	4674 Mar 25 11:07	0°♊		direct	4679 May 26 08:11	15°♑51'42	
	4674 May 04 12:15	0°♊			4679 Jul 20 23:15	0°♊	
	4674 Jun 12 21:21	0°♊		desc. node	4679 Jul 24 13:13	1°♊34'31	
	4674 Jul 22 13:51	0°♊			4679 Sep 16 06:01	0°♊	
	4674 Sep 02 03:22	0°♊			4679 Nov 02 10:50	0°♊	
asc. node	4674 Oct 11 14:46	25°♊33'29			4679 Dec 15 03:44	0°♊	
	4674 Oct 19 07:14	0°♊			4680 Jan 24 02:52	0°♊	
retrograde	4674 Dec 25 15:52	23°♊02'10			4680 Mar 02 12:52	0°♊	
min. Earth dist.	4675 Jan 27 03:02	15°♊53'56	0.56699 AU	evening set	4680 Mar 14 02:14	9°♊08'24	
greatest brilliancy	4675 Feb 01 05:39	13°♊54'26	-1.7m		4680 Apr 09 10:53	0°♊	
opposition	4675 Feb 02 16:30	13°♊20'22	4°28'36		4680 May 17 20:00	0°♊	
direct	4675 Mar 11 00:40	5°♊05'28					
	4675 May 28 11:45	0°♊		conjunction	4680 May 22 09:57	3°♊31'31	0°-7'-37
	4675 Jul 22 23:35	0°♊		minimum elong	4680 May 22 10:41	3°♊32'55	0°07'38
	4675 Sep 11 08:44	0°♊		behind sun begin	4680 May 21 08:43	2°♊43'03	
desc. node	4675 Oct 19 15:29	24°♊05'45		behind sun end	4680 May 23 12:39	4°♊22'45	
	4675 Oct 28 18:10	0°♊		asc. node	4680 Jun 02 11:48	11°♊59'24	
evening set	4675 Nov 24 19:08	17°♊55'01			4680 Jun 26 11:58	0°♊	
max. Earth dist.	4675 Dec 11 01:13	28°♊59'03	2.53121 AU	max. Earth dist.	4680 Jul 12 19:58	11°♊58'18	2.43644 AU
	4675 Dec 12 12:37	0°♊		morning rise	4680 Jul 27 06:32	22°♊21'13	
					4680 Aug 07 01:52	0°♊	
conjunction	4676 Jan 13 00:08	22°♊07'50	0°-44'-42		4680 Sep 20 00:10	0°♊	
minimum elong	4676 Jan 12 22:36	22°♊05'05	0°44'42		4680 Nov 05 16:20	0°♊	
	4676 Jan 23 21:55	0°♊			4680 Dec 26 07:42	0°♊	
	4676 Mar 04 08:11	0°♊			4681 Feb 26 15:25	0°♊	
morning rise	4676 Mar 07 02:45	2°♊06'04		retrograde	4681 Apr 10 12:15	8°♊57'58	
	4676 Apr 12 09:43	0°♊		opposition	4681 May 19 05:26	0°♊08'43	0°50'01
	4676 May 20 20:14	0°♊			4681 May 19 14:27	30°♑	
	4676 Jun 28 12:37	0°♊		greatest brilliancy	4681 May 19 10:49	0°♊03'30	-1.4m
	4676 Aug 07 10:40	0°♊		min. Earth dist.	4681 May 24 00:45	28°♊17'06	0.63630 AU
asc. node	4676 Aug 28 14:04	15°♊14'41		desc. node	4681 Jun 10 12:05	22°♊31'41	
	4676 Sep 18 20:46	0°♊		direct	4681 Jun 29 14:24	20°♊08'06	
	4676 Nov 05 05:44	0°♊			4681 Aug 12 08:08	0°♊	
	4677 Jan 13 17:45	0°♊			4681 Oct 08 12:08	0°♊	
retrograde	4677 Jan 30 19:30	1°♊46'56			4681 Nov 22 11:13	0°♊	

	4682 Jan 02 04:05	0°♄			4687 Jan 27 10:28	0°♄		
	4682 Feb 09 21:48	0°♄		desc. node	4687 Jan 31 09:04	2°♄35'15		
	4682 Mar 20 02:16	0°♄			4687 Mar 13 18:14	0°♄		
asc. node	4682 Apr 20 10:50	24°♄21'30			4687 Apr 27 09:57	0°♄		
	4682 Apr 27 19:36	0°♄			4687 Jun 10 22:30	0°♄		
evening set	4682 May 24 14:05	20°♄10'41			4687 Jul 27 06:47	0°♄		
	4682 Jun 06 21:38	0°♄			4687 Sep 30 00:58	0°♄		
	4682 Jul 18 21:03	0°♄		retrograde	4687 Oct 15 14:07	1°♄40'53		
					4687 Oct 31 06:06	30°♄		
conjunction	4682 Jul 23 07:55	3°♄05'50	0°52'57	min. Earth dist.	4687 Nov 11 01:48	27°♄14'22	0.39030 AU	
minimum elong	4682 Jul 23 06:00	3°♄02'30	0°52'56	opposition	4687 Nov 17 02:58	25°♄27'04	-1°-40'-51	
max. Earth dist.	4682 Aug 23 04:54	24°♄09'38	2.56569 AU	greatest brilliancy	4687 Nov 16 15:26	25°♄35'37	-2.8m	
	4682 Aug 31 22:41	0°♄		asc. node	4687 Dec 11 08:47	20°♄20'07		
morning rise	4682 Sep 14 07:56	8°♄50'54		direct	4687 Dec 17 02:42	20°♄06'39		
	4682 Oct 17 00:23	0°♄			4688 Jan 28 09:55	0°♄		
	4682 Dec 04 00:26	0°♄			4688 Mar 26 10:14	0°♄		
	4683 Jan 23 14:15	0°♄			4688 May 15 09:30	0°♄		
	4683 Mar 21 19:19	0°♄			4688 Jul 03 02:51	0°♄		
desc. node	4683 Apr 28 11:10	14°♄07'42			4688 Aug 20 12:00	0°♄		
retrograde	4683 May 25 04:11	17°♄57'13		evening set	4688 Oct 03 01:13	27°♄18'52		
opposition	4683 Jun 30 00:21	10°♄25'51	-2°-39'-31		4688 Oct 07 06:58	0°♄		
greatest brilliancy	4683 Jul 01 02:31	10°♄02'11	-1.9m	max. Earth dist.	4688 Nov 02 10:41	16°♄42'15	2.65310 AU	
min. Earth dist.	4683 Jul 07 23:40	7°♄33'24	0.53271 AU					
direct	4683 Aug 08 07:51	1°♄15'31		conjunction	4688 Nov 17 03:19	26°♄12'31	0°16'49	
	4683 Oct 24 15:26	0°♄		minimum elong	4688 Nov 17 03:51	26°♄13'22	0°16'49	
	4683 Dec 08 10:33	0°♄			4688 Nov 22 22:59	0°♄		
	4684 Jan 17 20:33	0°♄		desc. node	4688 Dec 18 07:31	16°♄43'09		
	4684 Feb 26 02:54	0°♄		morning rise	4689 Jan 01 00:25	25°♄54'02		
asc. node	4684 Mar 07 08:35	7°♄48'24			4689 Jan 07 02:05	0°♄		
	4684 Apr 05 18:53	0°♄			4689 Feb 19 13:19	0°♄		
	4684 May 16 18:51	0°♄			4689 Apr 02 11:19	0°♄		
	4684 Jun 28 14:17	0°♄			4689 May 13 04:02	0°♄		
evening set	4684 Jul 17 01:32	12°♄32'42			4689 Jun 22 06:10	0°♄		
	4684 Aug 12 06:36	0°♄			4689 Aug 01 21:26	0°♄		
					4689 Sep 14 11:30	0°♄		
conjunction	4684 Sep 05 11:12	15°♄48'29	1°07'49	asc. node	4689 Oct 28 07:07	24°♄27'19		
minimum elong	4684 Sep 05 11:22	15°♄48'46	1°07'49		4689 Nov 11 10:28	0°♄		
max. Earth dist.	4684 Sep 18 01:59	23°♄57'37	2.64935 AU	retrograde	4689 Dec 08 23:35	4°♄55'42		
	4684 Sep 27 11:38	0°♄			4690 Jan 04 07:46	30°♄		
morning rise	4684 Oct 21 22:32	15°♄35'46		min. Earth dist.	4690 Jan 08 04:47	28°♄37'15	0.51774 AU	
	4684 Nov 13 16:57	0°♄		greatest brilliancy	4690 Jan 14 09:54	26°♄17'07	-2.0m	
	4684 Dec 31 13:22	0°♄		opposition	4690 Jan 15 22:29	25°♄42'32	3°46'56	
	4685 Feb 18 03:50	0°♄		direct	4690 Feb 19 16:11	18°♄06'25		
desc. node	4685 Mar 15 10:09	15°♄13'50			4690 Apr 09 19:59	0°♄		
	4685 Apr 09 16:41	0°♄			4690 Jun 09 05:00	0°♄		
	4685 Jun 06 20:36	0°♄			4690 Jul 31 08:18	0°♄		
retrograde	4685 Jul 27 19:20	12°♄46'37			4690 Sep 18 15:32	0°♄		
opposition	4685 Aug 27 20:57	7°♄21'26	-6°-26'-59		4690 Nov 04 16:49	0°♄		
greatest brilliancy	4685 Aug 29 19:35	6°♄47'23	-2.7m	desc. node	4690 Nov 05 06:08	0°♄21'46		
min. Earth dist.	4685 Sep 03 08:33	5°♄28'23	0.40250 AU	evening set	4690 Nov 09 04:45	2°♄56'46		
direct	4685 Sep 29 23:14	1°♄05'43		max. Earth dist.	4690 Nov 28 19:23	15°♄57'34	2.57497 AU	
	4685 Dec 14 02:25	0°♄			4690 Dec 19 11:38	0°♄		
asc. node	4686 Jan 23 08:27	26°♄28'31						
	4686 Jan 28 11:23	0°♄		conjunction	4690 Dec 26 09:44	4°♄46'25	0°-27'-58	
	4686 Mar 12 11:51	0°♄		minimum elong	4690 Dec 26 08:43	4°♄44'40	0°27'57	
	4686 Apr 24 20:21	0°♄			4691 Jan 31 02:09	0°♄		
	4686 Jun 08 09:45	0°♄		morning rise	4691 Feb 14 10:43	10°♄26'05		
	4686 Jul 24 07:36	0°♄			4691 Mar 12 19:44	0°♄		
evening set	4686 Aug 28 01:12	22°♄15'43			4691 Apr 21 04:50	0°♄		
	4686 Sep 09 04:54	0°♄			4691 May 29 21:56	0°♄		
max. Earth dist.	4686 Oct 11 12:39	20°♄32'05	2.67854 AU		4691 Jul 07 20:11	0°♄		
					4691 Aug 17 02:34	0°♄		
conjunction	4686 Oct 13 03:11	21°♄33'18	0°51'50	asc. node	4691 Sep 15 05:55	20°♄31'44		
minimum elong	4686 Oct 13 04:15	21°♄34'59	0°51'50		4691 Sep 29 09:28	0°♄		
	4686 Oct 26 09:54	0°♄			4691 Nov 19 06:56	0°♄		
morning rise	4686 Nov 26 05:18	19°♄40'20		retrograde	4692 Jan 18 00:14	17°♄53'04		
	4686 Dec 12 07:00	0°♄		min. Earth dist.	4692 Feb 22 15:35	9°♄38'57	0.62805 AU	

opposition	4692 Feb 26 23:45	7° \mathbb{M} 55'00	4°43'07	asc. node	4697 May 07 02:57	1° \mathbb{H} 17'39	
greatest brilliancy	4692 Feb 26 00:15	8° \mathbb{M} 18'27	-1.4m		4697 Jun 14 07:03	0° \mathfrak{S}	
	4692 Mar 23 12:45	30° \mathbb{R} \mathcal{O}					
direct	4692 Apr 05 09:37	28° \mathcal{O} 55'26		conjunction	4697 Jul 01 19:26	12° \mathfrak{S} 46'05	0°35'10
	4692 Apr 19 01:18	0° \mathbb{M}		minimum elong	4697 Jul 01 17:17	12° \mathfrak{S} 42'12	0°35'07
	4692 Jul 05 21:34	0° \mathfrak{L}			4697 Jul 26 01:14	0° \mathcal{O}	
	4692 Aug 28 09:53	0° \mathbb{M}		max. Earth dist.	4697 Aug 10 07:59	10° \mathcal{O} 36'27	2.51945 AU
desc. node	4692 Sep 22 05:15	15° \mathbb{M} 04'47		morning rise	4697 Aug 28 02:10	22° \mathcal{O} 42'03	
	4692 Oct 15 19:25	0° \mathfrak{X}			4697 Sep 07 23:41	0° \mathbb{M}	
	4692 Nov 29 19:20	0° \mathfrak{Z}			4697 Oct 24 03:46	0° \mathfrak{L}	
evening set	4692 Dec 20 22:16	14° \mathfrak{Z} 46'44			4697 Dec 11 19:35	0° \mathbb{M}	
max. Earth dist.	4693 Jan 04 11:39	25° \mathfrak{Z} 13'05	2.45298 AU		4698 Feb 02 16:08	0° \mathfrak{X}	
	4693 Jan 11 01:28	0° \approx			4698 Apr 17 22:57	0° \mathfrak{Z}	
				retrograde	4698 May 06 05:49	1° \mathfrak{Z} 51'40	
conjunction	4693 Feb 13 06:14	24° \approx 43'38	-1°-3'-15	desc. node	4698 May 15 01:32	1° \mathfrak{Z} 22'18	
minimum elong	4693 Feb 13 05:13	24° \approx 41'43	1°03'17		4698 May 23 09:01	30° \mathbb{R} \mathfrak{X}	
	4693 Feb 20 04:32	0° \mathfrak{H}		opposition	4698 Jun 12 10:08	23° \mathfrak{X} 44'21	-1°-9'-16
	4693 Mar 30 22:06	0° \mathbb{Y}		greatest brilliancy	4698 Jun 12 20:14	23° \mathfrak{X} 34'54	-1.7m
morning rise	4693 Apr 17 18:07	14° \mathbb{Y} 00'36		min. Earth dist.	4698 Jun 19 07:12	21° \mathfrak{X} 09'48	0.57995 AU
greatest brilliancy	4693 Apr 27 01:24	21° \mathbb{Y} 20'01	1.2m	direct	4698 Jul 22 22:03	14° \mathfrak{X} 03'46	
	4693 May 08 01:40	0° \mathfrak{B}			4698 Sep 16 16:26	0° \mathfrak{Z}	
	4693 Jun 15 12:11	0° \mathbb{H}			4698 Nov 06 09:40	0° \approx	
	4693 Jul 25 03:13	0° \mathfrak{S}			4698 Dec 18 16:43	0° \mathfrak{H}	
asc. node	4693 Aug 02 05:54	5° \mathfrak{S} 58'28			4699 Jan 27 03:37	0° \mathbb{Y}	
	4693 Sep 04 20:57	0° \mathcal{O}			4699 Mar 06 19:41	0° \mathfrak{B}	
	4693 Oct 19 23:23	0° \mathbb{M}		asc. node	4699 Mar 25 02:51	14° \mathfrak{B} 06'43	
	4693 Dec 10 17:37	0° \mathfrak{L}			4699 Apr 14 23:33	0° \mathbb{H}	
retrograde	4694 Feb 20 18:47	22° \mathfrak{L} 44'15			4699 May 25 12:13	0° \mathfrak{S}	
opposition	4694 Apr 02 01:30	12° \mathfrak{L} 57'36	3°49'12	evening set	4699 Jun 28 20:22	24° \mathfrak{S} 24'36	
greatest brilliancy	4694 Apr 01 23:04	13° \mathfrak{L} 00'01	-1.2m		4699 Jul 06 21:32	0° \mathcal{O}	
min. Earth dist.	4694 Apr 01 13:59	13° \mathfrak{L} 09'05	0.67743 AU		4699 Aug 20 06:08	0° \mathbb{M}	
direct	4694 May 12 17:24	3° \mathfrak{L} 12'56					
	4694 Aug 03 10:15	0° \mathbb{M}		conjunction	4699 Aug 21 05:13	0° \mathbb{M} 38'12	1°06'36
desc. node	4694 Aug 10 04:44	3° \mathbb{M} 32'13		minimum elong	4699 Aug 21 04:38	0° \mathbb{M} 37'15	1°06'36
	4694 Sep 25 02:34	0° \mathfrak{X}		max. Earth dist.	4699 Sep 09 09:19	13° \mathbb{M} 13'56	2.62275 AU
	4694 Nov 10 06:56	0° \mathfrak{Z}			4699 Oct 05 07:53	0° \mathfrak{L}	
	4694 Dec 22 17:17	0° \approx		morning rise	4699 Oct 08 15:16	2° \mathfrak{L} 07'06	
	4695 Jan 31 15:26	0° \mathfrak{H}			4699 Nov 21 17:25	0° \mathbb{M}	
evening set	4695 Feb 15 15:00	11° \mathfrak{H} 35'50			4700 Jan 09 07:18	0° \mathfrak{X}	
	4695 Mar 11 01:57	0° \mathbb{Y}			4700 Feb 28 19:37	0° \mathfrak{Z}	
	4695 Apr 18 00:06	0° \mathfrak{B}		desc. node	4700 Apr 02 00:46	17° \mathfrak{Z} 51'07	
					4700 Apr 26 05:53	0° \approx	
conjunction	4695 Apr 23 23:25	4° \mathfrak{B} 42'47	0°-37'-29	retrograde	4700 Jun 30 04:36	18° \approx 37'59	
minimum elong	4695 Apr 24 02:41	4° \mathfrak{B} 49'13	0°37'28	opposition	4700 Aug 02 07:37	12° \approx 20'20	-5°-14'-27
	4695 May 26 08:08	0° \mathbb{H}		greatest brilliancy	4700 Aug 04 09:22	11° \approx 39'58	-2.3m
max. Earth dist.	4695 Jun 09 14:30	10° \mathbb{H} 57'01	2.38442 AU	min. Earth dist.	4700 Aug 10 16:59	9° \approx 38'01	0.45072 AU
asc. node	4695 Jun 20 03:48	18° \mathbb{H} 57'25		direct	4700 Sep 07 10:30	4° \approx 40'37	
morning rise	4695 Jul 03 16:33	29° \mathbb{H} 05'10			4700 Nov 15 19:28	0° \mathfrak{H}	
	4695 Jul 04 22:06	0° \mathfrak{S}			4700 Dec 30 22:48	0° \mathbb{Y}	
	4695 Aug 15 10:20	0° \mathcal{O}		asc. node	4701 Feb 10 01:35	29° \mathbb{Y} 47'15	
	4695 Sep 28 10:31	0° \mathbb{M}			4701 Feb 10 08:33	0° \mathfrak{B}	
	4695 Nov 14 16:30	0° \mathfrak{L}			4701 Mar 23 10:28	0° \mathbb{H}	
	4696 Jan 06 17:18	0° \mathbb{M}			4701 May 04 12:45	0° \mathfrak{S}	
retrograde	4696 Mar 26 18:13	25° \mathbb{M} 46'45			4701 Jun 17 04:57	0° \mathcal{O}	
opposition	4696 May 05 04:00	16° \mathbb{M} 36'34	1°51'46		4701 Aug 01 12:14	0° \mathbb{M}	
greatest brilliancy	4696 May 05 11:43	16° \mathbb{M} 29'00	-1.3m	evening set	4701 Aug 13 14:36	7° \mathbb{M} 51'43	
min. Earth dist.	4696 May 08 12:09	15° \mathbb{M} 17'59	0.66093 AU		4701 Sep 17 01:05	0° \mathfrak{L}	
direct	4696 Jun 15 16:04	6° \mathbb{M} 33'50					
desc. node	4696 Jun 27 03:16	7° \mathbb{M} 20'30		conjunction	4701 Sep 29 22:28	8° \mathfrak{L} 13'21	1°00'47
	4696 Aug 28 12:45	0° \mathfrak{X}		minimum elong	4701 Sep 29 23:23	8° \mathfrak{L} 14'48	1°00'47
	4696 Oct 18 08:54	0° \mathfrak{Z}		max. Earth dist.	4701 Oct 03 16:57	10° \mathfrak{L} 37'26	2.67353 AU
	4696 Dec 01 01:59	0° \approx			4701 Nov 03 04:26	0° \mathbb{M}	
	4697 Jan 10 08:42	0° \mathfrak{H}		morning rise	4701 Nov 13 13:58	6° \mathbb{M} 36'26	
	4697 Feb 17 21:32	0° \mathbb{Y}			4701 Dec 20 07:53	0° \mathfrak{X}	
	4697 Mar 27 21:55	0° \mathfrak{B}			4702 Feb 05 04:16	0° \mathfrak{Z}	
evening set	4697 Apr 28 03:17	24° \mathfrak{B} 22'38		desc. node	4702 Feb 17 23:43	8° \mathfrak{Z} 13'56	
	4697 May 05 10:27	0° \mathbb{H}			4702 Mar 23 19:56	0° \approx	

	4702 May 09 19:54	0° H		opposition	4707 Feb 12 21:44	22° Ω 57'01	4°39'55
	4702 Jun 28 02:45	0° Y		greatest brilliancy	4707 Feb 11 14:11	23° Ω 28'11	-1.6m
	4702 Sep 12 11:07	0° B		direct	4707 Mar 22 01:14	14° Ω 24'29	
retrograde	4702 Sep 17 10:09	0° B 09'48			4707 May 19 23:19	0° M	
	4702 Sep 22 08:33	30° R Y			4707 Jul 17 23:39	0° Ω	
min. Earth dist.	4702 Oct 16 09:52	25° Y 23'34	0.36994 AU		4707 Sep 07 06:57	0° M	
opposition	4702 Oct 17 15:04	25° Y 04'09	-4°-53'-21	desc. node	4707 Oct 10 20:20	20° M 53'27	
greatest brilliancy	4702 Oct 17 13:22	25° Y 05'17	-2.9m		4707 Oct 25 00:31	0° J	
direct	4702 Nov 16 01:44	20° Y 11'04		evening set	4707 Dec 05 03:23	27° J 25'39	
	4702 Dec 27 06:38	0° B			4707 Dec 08 21:13	0° B	
asc. node	4702 Dec 29 00:25	0° B 44'53		max. Earth dist.	4707 Dec 20 02:35	7° B 47'19	2.50462 AU
	4703 Feb 20 23:08	0° II			4708 Jan 20 05:51	0° \approx	
	4703 Apr 09 17:46	0° B					
	4703 May 26 15:41	0° Ω		conjunction	4708 Jan 24 20:37	3° \approx 21'59	0°-53'-3
	4703 Jul 12 22:34	0° M		minimum elong	4708 Jan 24 19:00	3° \approx 19'01	0°53'03
	4703 Aug 29 14:09	0° Ω			4708 Feb 29 13:39	0° H	
evening set	4703 Sep 20 21:07	14° Ω 02'36		morning rise	4708 Mar 21 22:39	16° H 22'15	
	4703 Oct 16 01:51	0° M			4708 Apr 08 12:07	0° Y	
max. Earth dist.	4703 Oct 26 08:11	6° M 32'23	2.66942 AU		4708 May 16 19:38	0° B	
					4708 Jun 24 08:53	0° II	
conjunction	4703 Nov 05 00:37	12° M 44'05	0°32'05		4708 Aug 03 02:50	0° B	
minimum elong	4703 Nov 05 01:30	12° M 45'30	0°32'04	asc. node	4708 Aug 19 21:14	12° B 12'50	
	4703 Dec 01 18:20	0° J			4708 Sep 14 04:06	0° Ω	
morning rise	4703 Dec 19 05:07	11° J 24'52			4708 Oct 30 08:49	0° M	
desc. node	4704 Jan 05 22:14	23° J 07'59			4708 Dec 27 01:49	0° Ω	
	4704 Jan 16 04:53	0° B		retrograde	4709 Feb 08 12:21	9° Ω 52'44	
	4704 Feb 29 05:53	0° \approx		min. Earth dist.	4709 Mar 18 20:04	0° Ω 45'52	0.66599 AU
	4704 Apr 11 22:44	0° H		opposition	4709 Mar 20 20:00	29° M 57'52	4°18'37
	4704 May 23 14:28	0° Y		greatest brilliancy	4709 Mar 20 09:57	0° Ω 07'56	-1.3m
	4704 Jul 03 21:14	0° B			4709 Mar 20 17:53	30° R M	
	4704 Aug 15 11:11	0° II		direct	4709 Apr 29 18:55	20° M 27'33	
	4704 Oct 04 03:06	0° B			4709 Jun 13 10:01	0° Ω	
asc. node	4704 Nov 15 00:19	13° B 28'33			4709 Aug 14 19:54	0° M	
retrograde	4704 Nov 21 02:46	13° B 44'49		desc. node	4709 Aug 27 18:58	7° M 21'31	
min. Earth dist.	4704 Dec 19 01:18	8° B 20'04	0.46385 AU		4709 Oct 04 05:03	0° J	
greatest brilliancy	4704 Dec 26 06:21	5° B 47'58	-2.3m		4709 Nov 18 18:57	0° B	
opposition	4704 Dec 27 10:00	5° B 23'29	2°24'45		4709 Dec 31 02:36	0° \approx	
	4705 Jan 14 23:47	30° R II		evening set	4710 Jan 23 03:04	17° \approx 06'06	
direct	4705 Jan 29 08:29	28° II 36'24			4710 Feb 09 02:03	0° H	
	4705 Feb 13 06:45	0° B		max. Earth dist.	4710 Feb 25 10:55	12° H 38'54	2.37785 AU
	4705 Apr 27 20:27	0° Ω			4710 Mar 19 14:39	0° Y	
	4705 Jun 19 23:28	0° M					
	4705 Aug 09 04:04	0° Ω		conjunction	4710 Mar 26 09:41	5° Y 21'16	0°-58'-35
	4705 Sep 26 17:36	0° M		minimum elong	4710 Mar 26 12:09	5° Y 26'07	0°58'35
evening set	4705 Oct 26 10:03	18° M 52'28			4710 Apr 26 14:08	0° B	
	4705 Nov 12 13:39	0° J			4710 Jun 03 22:00	0° II	
max. Earth dist.	4705 Nov 18 21:22	4° J 08'46	2.61145 AU	morning rise	4710 Jun 05 23:59	1° II 36'33	
desc. node	4705 Nov 22 21:20	6° J 46'56		asc. node	4710 Jul 07 21:25	25° II 51'39	
					4710 Jul 13 10:44	0° B	
conjunction	4705 Dec 11 08:44	19° J 05'44	0°-10'-14		4710 Aug 23 22:37	0° Ω	
minimum elong	4705 Dec 11 08:22	19° J 05'07	0°10'14		4710 Oct 07 03:35	0° M	
behind sun begin	4705 Dec 10 17:01	18° J 39'20			4710 Nov 24 08:44	0° Ω	
behind sun end	4705 Dec 11 23:43	19° J 30'55			4711 Jan 21 05:28	0° M	
	4705 Dec 27 10:29	0° B		retrograde	4711 Mar 14 20:47	13° M 04'20	
morning rise	4706 Jan 27 16:06	21° B 43'08		opposition	4711 Apr 23 18:01	3° M 37'13	2°44'04
	4706 Feb 08 07:39	0° \approx		greatest brilliancy	4711 Apr 23 23:53	3° M 31'25	-1.2m
	4706 Mar 21 10:21	0° H		min. Earth dist.	4711 Apr 25 14:29	2° M 53'13	0.67522 AU
	4706 Apr 30 05:11	0° Y			4711 May 03 02:39	30° R Ω	
	4706 Jun 08 07:41	0° B		direct	4711 Jun 04 02:25	23° Ω 38'15	
	4706 Jul 17 15:44	0° II			4711 Jul 09 05:53	0° M	
	4706 Aug 27 13:46	0° B		desc. node	4711 Jul 15 17:38	2° M 15'14	
asc. node	4706 Oct 02 22:38	24° B 34'01			4711 Sep 10 20:47	0° J	
	4706 Oct 11 15:17	0° Ω			4711 Oct 29 01:57	0° B	
	4706 Dec 14 12:51	0° M			4711 Dec 11 02:42	0° \approx	
retrograde	4707 Jan 04 10:31	2° M 47'39			4712 Jan 20 04:27	0° H	
	4707 Jan 24 05:29	30° R Ω			4712 Feb 27 15:23	0° Y	
min. Earth dist.	4707 Feb 07 02:24	25° Ω 14'28	0.59127 AU	evening set	4712 Mar 31 09:11	25° Y 53'31	


































































































































	4712 Apr 05 14:03	0°♄			4716 Nov 10 00:08	0°♍	
greatest brilliancy	4712 Apr 09 21:09	3°♄23'13	1.2m		4716 Dec 27 13:04	0°♄	
	4712 May 13 23:49	0°♂			4717 Feb 13 09:13	0°♄	
asc. node	4712 May 24 20:21	8°♂19'27		desc. node	4717 Mar 06 14:42	13°♄10'53	
					4717 Apr 03 02:18	0°♌	
conjunction	4712 Jun 07 21:44	18°♂58'24	0°09'33		4717 May 24 20:33	0°♌	
minimum elong	4712 Jun 07 20:54	18°♂56'50	0°09'31	retrograde	4717 Aug 15 15:25	29°♌03'32	
behind sun begin	4712 Jun 06 22:10	18°♂14'05		opposition	4717 Sep 14 23:30	23°♌59'58	-6°-31'-34
behind sun end	4712 Jun 08 19:37	19°♂39'32		greatest brilliancy	4717 Sep 16 07:59	23°♌37'38	-2.8m
	4712 Jun 22 16:32	0°♄		min. Earth dist.	4717 Sep 19 05:07	22°♌50'24	0.38297 AU
max. Earth dist.	4712 Jul 25 23:07	24°♄07'16	2.46687 AU	direct	4717 Oct 16 05:59	18°♌28'28	
	4712 Aug 03 06:49	0°♌			4717 Nov 29 07:05	0°♍	
morning rise	4712 Aug 09 13:28	4°♌23'43		asc. node	4718 Jan 14 17:11	26°♍19'06	
	4712 Sep 16 03:29	0°♍			4718 Jan 20 11:09	0°♄	
	4712 Nov 01 12:55	0°♌			4718 Mar 06 12:59	0°♂	
	4712 Dec 21 05:17	0°♍			4718 Apr 19 22:34	0°♄	
	4713 Feb 16 08:02	0°♄			4718 Jun 04 03:13	0°♌	
retrograde	4713 Apr 20 10:02	17°♄18'15			4718 Jul 20 10:20	0°♍	
opposition	4713 May 28 15:41	8°♄42'12	0°09'19		4718 Sep 05 12:56	0°♌	
greatest brilliancy	4713 May 12 05:55	14°♄17'14	-1.6m	evening set	4718 Sep 06 11:38	0°♌35'59	
desc. node	4713 Jun 01 16:07	7°♄09'33		max. Earth dist.	4718 Oct 17 15:17	26°♌41'57	2.67768 AU
min. Earth dist.	4713 Jun 03 05:20	6°♄34'03	0.61883 AU				
	4713 Jun 25 04:25	30°♌		conjunction	4718 Oct 22 02:20	29°♌32'09	0°45'16
direct	4713 Jul 08 19:49	28°♌45'48		minimum elong	4718 Oct 22 03:24	29°♌33'50	0°45'16
	4713 Jul 23 02:47	0°♄			4718 Oct 22 19:51	0°♍	
	4713 Oct 02 07:17	0°♄		morning rise	4718 Dec 05 02:00	27°♌42'44	
	4713 Nov 17 14:49	0°♌			4718 Dec 08 14:58	0°♄	
	4713 Dec 28 18:14	0°♌		desc. node	4719 Jan 22 13:32	29°♄22'58	
	4714 Feb 05 16:41	0°♍			4719 Jan 23 11:55	0°♄	
	4714 Mar 16 00:14	0°♄			4719 Mar 09 07:11	0°♌	
asc. node	4714 Apr 11 18:32	20°♄45'45			4719 Apr 22 02:41	0°♌	
	4714 Apr 23 20:09	0°♂			4719 Jun 04 06:48	0°♍	
	4714 Jun 03 00:45	0°♄			4719 Jul 17 21:21	0°♄	
evening set	4714 Jun 08 03:54	3°♄44'10			4719 Sep 04 02:00	0°♂	
	4714 Jul 15 02:36	0°♌		retrograde	4719 Oct 31 01:20	18°♂29'29	
conjunction	4714 Aug 04 09:06	13°♌57'13	0°59'50	min. Earth dist.	4719 Nov 26 10:29	13°♂50'44	0.41291 AU
minimum elong	4714 Aug 04 07:38	13°♌54'43	0°59'49	asc. node	4719 Dec 02 15:38	11°♂52'58	
	4714 Aug 28 05:31	0°♍		opposition	4719 Dec 04 01:12	11°♂26'16	0°05'33
max. Earth dist.	4714 Aug 30 20:49	1°♍45'05	2.58825 AU	greatest brilliancy	4720 Mar 20 05:07	1°♄22'25	-3.8m
morning rise	4714 Sep 24 11:42	17°♍54'26		direct	4720 Jan 03 23:51	5°♂36'05	
	4714 Oct 13 05:59	0°♌			4720 Mar 17 14:13	0°♄	
	4714 Nov 29 22:54	0°♍			4720 May 09 19:08	0°♌	
	4715 Jan 18 14:34	0°♄			4720 Jun 28 16:27	0°♍	
	4715 Mar 13 09:34	0°♄			4720 Aug 16 14:37	0°♌	
desc. node	4715 Apr 19 14:51	17°♄18'30		evening set	4720 Oct 03 15:34	0°♍	
retrograde	4715 Jun 07 02:36	28°♄32'12		max. Earth dist.	4720 Oct 12 03:08	5°♌22'35	
opposition	4715 Jul 12 02:42	21°♄24'17	-3°-35'-40		4720 Nov 08 22:05	23°♌12'05	2.64063 AU
greatest brilliancy	4715 Jul 13 14:43	20°♄52'39	-2.0m		4720 Nov 19 08:56	0°♄	
min. Earth dist.	4715 Jul 20 12:08	18°♄28'25	0.50431 AU	conjunction	4720 Nov 26 08:55	4°♄35'05	0°07'13
direct	4715 Aug 19 12:23	12°♄39'21		minimum elong	4720 Nov 26 09:09	4°♄35'27	0°07'13
	4715 Oct 14 23:13	0°♌		behind sun begin	4720 Nov 25 15:56	4°♄07'13	
	4715 Dec 02 03:49	0°♌		behind sun end	4720 Nov 27 02:21	5°♄03'42	
	4716 Jan 12 13:55	0°♍		desc. node	4720 Dec 09 11:54	13°♄15'23	
	4716 Feb 21 08:54	0°♄			4721 Jan 03 10:02	0°♄	
asc. node	4716 Feb 27 17:58	4°♄49'01		morning rise	4721 Jan 10 21:22	5°♄05'44	
	4716 Apr 01 09:32	0°♂			4721 Feb 15 16:20	0°♌	
	4716 May 12 16:15	0°♄			4721 Mar 29 07:15	0°♌	
	4716 Jun 24 17:13	0°♌			4721 May 08 15:16	0°♍	
evening set	4716 Jul 28 02:29	22°♌26'27			4721 Jun 17 07:14	0°♄	
	4716 Aug 08 13:24	0°♍			4721 Jul 27 07:19	0°♂	
					4721 Sep 07 11:19	0°♄	
conjunction	4716 Sep 15 05:24	24°♍27'55	1°06'22	asc. node	4721 Oct 19 15:28	26°♄07'25	
minimum elong	4716 Sep 15 05:55	24°♍28'44	1°06'23		4721 Oct 26 23:45	0°♌	
	4716 Sep 23 20:19	0°♌		retrograde	4721 Dec 19 16:54	16°♌00'27	
max. Earth dist.	4716 Sep 24 12:39	0°♌26'09	2.66032 AU	min. Earth dist.	4722 Jan 20 04:28	9°♌14'00	0.54574 AU
morning rise	4716 Oct 30 21:37	23°♌36'05		greatest brilliancy	4722 Jan 25 19:04	7°♌04'32	-1.8m

opposition	4722 Jan 27 07:51	6°Ω29'00	4°15'20	conjunction	4727 May 11 17:22	21°♄37'51	0°-20'-59
	4722 Feb 17 02:13	30°♌♄		minimum elong	4727 May 11 19:27	21°♄41'53	0°20'58
direct	4722 Mar 03 23:14	28°♄30'30			4727 May 22 12:14	0°♈	
	4722 Mar 19 20:11	0°♌		asc. node	4727 Jun 11 12:34	15°♈19'27	
	4722 Jun 02 22:27	0°♍			4727 Jul 01 02:02	0°♄	
	4722 Jul 26 19:50	0°♌		max. Earth dist.	4727 Jul 02 19:50	1°♄17'27	2.41195 AU
	4722 Sep 14 18:01	0°♍		morning rise	4727 Jul 19 01:07	13°♄10'51	
desc. node	4722 Oct 27 10:43	27°♍01'08			4727 Aug 11 13:44	0°♌	
	4722 Nov 01 00:49	0°♌			4727 Sep 24 10:51	0°♍	
evening set	4722 Nov 18 23:12	11°♌48'35			4727 Nov 10 06:22	0°♌	
max. Earth dist.	4722 Dec 06 15:25	23°♌41'55	2.55166 AU		4727 Dec 31 15:19	0°♍	
	4722 Dec 15 20:35	0°♄			4728 Mar 09 15:31	0°♌	
				retrograde	4728 Apr 05 02:03	3°♌44'47	
conjunction	4723 Jan 06 04:05	14°♄50'34	0°-37'-51		4728 Apr 29 09:30	30°♌	
minimum elong	4723 Jan 06 02:44	14°♄48'12	0°37'51	opposition	4728 May 14 03:04	24°♍45'31	1°16'54
	4723 Jan 27 09:18	0°♌		greatest brilliancy	4728 May 14 09:57	24°♍38'49	-1.4m
morning rise	4723 Feb 27 06:33	22°♌42'39		min. Earth dist.	4728 May 18 06:29	23°♍08'41	0.64852 AU
	4723 Mar 08 23:41	0°♌		desc. node	4728 Jun 18 07:07	14°♍58'33	
	4723 Apr 17 04:58	0°♍		direct	4728 Jun 24 14:06	14°♍43'17	
	4723 May 25 18:27	0°♄			4728 Aug 20 06:19	0°♌	
	4723 Jul 03 12:43	0°♈			4728 Oct 13 04:36	0°♄	
	4723 Aug 12 12:41	0°♄			4728 Nov 26 15:09	0°♌	
asc. node	4723 Sep 06 15:16	17°♄58'24			4729 Jan 06 04:25	0°♌	
	4723 Sep 24 04:17	0°♌			4729 Feb 13 20:16	0°♍	
	4723 Nov 11 12:27	0°♍			4729 Mar 23 22:46	0°♄	
retrograde	4724 Jan 26 23:28	26°♍25'33		asc. node	4729 Apr 28 12:01	27°♄39'31	
min. Earth dist.	4724 Mar 03 14:46	17°♍51'44	0.64416 AU		4729 May 01 13:14	0°♈	
greatest brilliancy	4724 Mar 06 08:43	16°♍45'47	-1.4m	evening set	4729 May 14 09:36	9°♈47'18	
opposition	4724 Mar 07 03:26	16°♍27'04	4°37'51		4729 Jun 10 11:36	0°♄	
direct	4724 Apr 15 04:14	7°♍15'21					
	4724 Jun 29 04:18	0°♌		conjunction	4729 Jul 15 08:17	25°♄06'37	0°46'18
	4724 Aug 23 20:16	0°♍		minimum elong	4729 Jul 15 06:09	25°♄02'51	0°46'16
desc. node	4724 Sep 13 09:37	12°♍14'37			4729 Jul 22 07:19	0°♌	
	4724 Oct 11 20:46	0°♌		max. Earth dist.	4729 Aug 19 01:48	19°♌07'38	2.54584 AU
	4724 Nov 26 01:45	0°♄			4729 Sep 04 05:56	0°♍	
evening set	4725 Jan 01 20:38	25°♄59'37		morning rise	4729 Sep 08 02:49	2°♍34'27	
	4725 Jan 07 08:45	0°♌			4729 Oct 20 07:13	0°♌	
max. Earth dist.	4725 Jan 18 02:07	7°♌53'20	2.42397 AU		4729 Dec 07 12:03	0°♍	
	4725 Feb 16 10:43	0°♌			4730 Jan 27 20:06	0°♌	
					4730 Mar 29 18:52	0°♄	
conjunction	4725 Feb 27 17:38	8°♌40'34	-1°-5'-11	desc. node	4730 May 06 06:19	10°♄30'20	
minimum elong	4725 Feb 27 17:36	8°♌40'32	1°05'13	retrograde	4730 May 17 15:29	11°♄15'38	
	4725 Mar 27 02:22	0°♍		opposition	4730 Jun 23 03:27	3°♄27'04	-1°-59'-49
	4725 May 04 04:10	0°♄		greatest brilliancy	4730 Jun 23 22:14	3°♄09'46	-1.8m
morning rise	4725 May 05 21:56	1°♄22'13		min. Earth dist.	4730 Jun 30 16:20	0°♄40'58	0.55468 AU
	4725 Jun 11 13:12	0°♈			4730 Jul 02 14:28	30°♌♌	
	4725 Jul 21 02:23	0°♄		direct	4730 Aug 02 01:22	24°♌01'07	
asc. node	4725 Jul 24 13:37	2°♄34'05			4730 Sep 02 21:12	0°♄	
	4725 Aug 31 16:26	0°♌			4730 Oct 30 22:10	0°♌	
	4725 Oct 15 07:32	0°♍			4730 Dec 13 11:19	0°♌	
	4725 Dec 04 06:03	0°♌			4731 Jan 22 10:01	0°♍	
	4726 Feb 20 13:16	0°♍			4731 Mar 02 09:10	0°♄	
retrograde	4726 Mar 01 09:44	0°♍28'36		asc. node	4731 Mar 16 10:01	10°♄46'06	
	4726 Mar 09 22:54	30°♌♌			4731 Apr 10 18:40	0°♈	
opposition	4726 Apr 10 14:20	20°♌48'01	3°27'41		4731 May 21 12:09	0°♄	
greatest brilliancy	4726 Apr 10 15:26	20°♌46'55	-1.2m		4731 Jul 03 01:46	0°♌	
min. Earth dist.	4726 Apr 10 22:34	20°♌39'49	0.67940 AU	evening set	4731 Jul 11 00:49	5°♌27'46	
direct	4726 May 21 13:46	10°♌57'22			4731 Aug 16 13:17	0°♍	
	4726 Jul 27 06:30	0°♍					
desc. node	4726 Aug 01 08:17	2°♍25'53		conjunction	4731 Aug 31 15:20	9°♍55'01	1°07'54
	4726 Sep 20 09:00	0°♌		minimum elong	4731 Aug 31 15:13	9°♍54'49	1°07'54
	4726 Nov 06 04:32	0°♄		max. Earth dist.	4731 Sep 16 01:55	19°♍57'42	2.63852 AU
	4726 Dec 18 20:03	0°♌			4731 Oct 01 15:53	0°♌	
	4727 Jan 27 19:46	0°♌		morning rise	4731 Oct 17 21:18	10°♌22'06	
evening set	4727 Mar 03 17:38	27°♌12'57			4731 Nov 17 22:12	0°♍	
	4727 Mar 07 06:21	0°♍			4732 Jan 05 01:07	0°♌	
	4727 Apr 14 04:19	0°♄			4732 Feb 23 08:43	0°♄	

desc. node	4732 Mar 23 05:22	16° $\overline{3}$ 53'14		4737 Aug 03 23:06	0° $\underline{9}$	
	4732 Apr 15 19:09	0° \approx		4737 Sep 21 22:50	0° \overline{m}	
	4732 Jun 26 13:51	0° \overline{H}	evening set	4737 Nov 03 19:05	27° \overline{m} 17'52	
retrograde	4732 Jul 15 17:14	2° \overline{H} 06'01		4737 Nov 07 22:37	0° \overline{x}	
	4732 Aug 03 01:39	30° \overline{R} \approx	desc. node	4737 Nov 13 01:10	3° \overline{x} 20'31	
opposition	4732 Aug 16 15:20	26° \approx 18'05	-6°-1'-50	max. Earth dist.	4737 Nov 25 01:22	11° \overline{x} 16'21 2.59229 AU
greatest brilliancy	4732 Aug 18 18:46	25° \approx 38'35	-2.5m			
min. Earth dist.	4732 Aug 24 06:41	23° \approx 58'01	0.42266 AU	conjunction	4737 Dec 20 08:23	28° \overline{x} 18'52 0°-20'-32
direct	4732 Sep 20 04:24	19° \approx 23'18		minimum elong	4737 Dec 20 07:38	28° \overline{x} 17'36 0°20'32
	4732 Oct 31 19:03	0° \overline{H}			4737 Dec 22 19:31	0° $\overline{3}$
	4732 Dec 22 05:36	0° \overline{Y}			4738 Feb 03 13:56	0° \approx
asc. node	4733 Jan 31 09:23	27° \overline{Y} 53'37		morning rise	4738 Feb 07 00:21	2° \approx 28'11
	4733 Feb 03 08:21	0° $\overline{8}$			4738 Mar 16 12:24	0° \overline{H}
	4733 Mar 17 07:53	0° \overline{II}			4738 Apr 25 02:04	0° \overline{Y}
	4733 Apr 29 00:08	0° $\overline{3}$			4738 Jun 02 23:07	0° $\overline{8}$
	4733 Jun 12 02:20	0° $\underline{9}$			4738 Jul 12 00:45	0° \overline{II}
	4733 Jul 27 16:21	0° \overline{m}			4738 Aug 21 11:31	0° $\overline{3}$
evening set	4733 Aug 22 13:14	16° \overline{m} 40'52		asc. node	4738 Sep 23 06:58	22° $\overline{3}$ 48'18
	4733 Sep 12 09:16	0° $\underline{9}$			4738 Oct 04 06:41	0° $\underline{9}$
					4738 Nov 26 21:24	0° \overline{m}
conjunction	4733 Oct 08 02:42	16° $\underline{9}$ 22'14	0°55'55	retrograde	4739 Jan 12 21:04	12° \overline{m} 02'54
minimum elong	4733 Oct 08 03:44	16° $\underline{9}$ 23'52	0°55'56	min. Earth dist.	4739 Feb 16 15:45	4° \overline{m} 06'48 0.61274 AU
max. Earth dist.	4733 Oct 08 21:02	16° $\underline{9}$ 51'22	2.67747 AU	opposition	4739 Feb 21 16:26	2° \overline{m} 06'57 4°44'12
	4733 Oct 29 13:17	0° \overline{m}		greatest brilliancy	4739 Feb 20 13:05	2° \overline{m} 34'08 -1.5m
morning rise	4733 Nov 21 09:08	14° \overline{m} 32'21			4739 Feb 27 03:04	30° \overline{R} $\underline{9}$
	4733 Dec 15 13:08	0° \overline{x}		direct	4739 Mar 31 13:53	23° $\underline{9}$ 18'45
	4734 Jan 31 00:01	0° $\overline{3}$			4739 May 06 17:44	0° \overline{m}
desc. node	4734 Feb 08 04:14	5° $\overline{3}$ 19'23			4739 Jul 11 12:49	0° $\underline{9}$
	4734 Mar 17 20:49	0° \approx			4739 Sep 02 01:21	0° \overline{m}
	4734 May 02 10:00	0° \overline{H}		desc. node	4739 Oct 01 00:19	17° \overline{m} 46'58
	4734 Jun 17 11:58	0° \overline{Y}			4739 Oct 20 04:51	0° \overline{x}
	4734 Aug 06 20:09	0° $\overline{8}$			4739 Dec 04 04:46	0° $\overline{3}$
retrograde	4734 Oct 04 08:24	18° $\overline{8}$ 33'21		evening set	4739 Dec 15 00:52	7° $\overline{3}$ 30'57
min. Earth dist.	4734 Oct 31 13:08	14° $\overline{8}$ 06'06	0.37731 AU	max. Earth dist.	4739 Dec 29 09:22	17° $\overline{3}$ 38'26 2.47650 AU
opposition	4734 Nov 04 17:14	12° $\overline{8}$ 56'01	-3°-8'-16		4740 Jan 15 13:11	0° \approx
greatest brilliancy	4734 Nov 04 05:00	13° $\overline{8}$ 04'36	-2.9m			
direct	4734 Dec 04 05:55	7° $\overline{8}$ 53'54		conjunction	4740 Feb 05 14:15	15° \approx 31'04 0°-59'-47
asc. node	4734 Dec 19 09:46	9° $\overline{8}$ 23'09		minimum elong	4740 Feb 05 12:50	15° \approx 28'25 0°59'47
	4735 Feb 09 15:05	0° \overline{II}			4740 Feb 24 19:24	0° \overline{H}
	4735 Apr 02 09:23	0° $\overline{3}$			4740 Apr 03 15:37	0° \overline{Y}
	4735 May 20 18:16	0° $\underline{9}$		morning rise	4740 Apr 06 02:07	1° \overline{Y} 54'21
	4735 Jul 07 18:17	0° \overline{m}			4740 May 11 20:58	0° $\overline{8}$
	4735 Aug 24 19:03	0° $\underline{9}$		greatest brilliancy	4740 Jun 13 19:43	25° $\overline{8}$ 43'59 1.2m
evening set	4735 Sep 29 00:16	22° $\underline{9}$ 07'28			4740 Jun 19 08:13	0° \overline{II}
	4735 Oct 11 10:56	0° \overline{m}			4740 Jul 28 23:11	0° $\overline{3}$
max. Earth dist.	4735 Oct 31 14:27	12° \overline{m} 50'51	2.66149 AU	asc. node	4740 Aug 10 07:00	9° $\overline{3}$ 02'55
					4740 Sep 08 18:03	0° $\underline{9}$
conjunction	4735 Nov 13 01:32	20° \overline{m} 51'45	0°23'24		4740 Oct 24 03:20	0° \overline{m}
minimum elong	4735 Nov 13 02:14	20° \overline{m} 52'52	0°23'24		4740 Dec 16 11:50	0° $\underline{9}$
	4735 Nov 27 03:38	0° \overline{x}		retrograde	4741 Feb 16 03:02	17° $\underline{9}$ 46'04
morning rise	4735 Dec 27 13:21	20° \overline{x} 01'25		min. Earth dist.	4741 Mar 27 06:49	8° $\underline{9}$ 23'21 0.67356 AU
desc. node	4735 Dec 27 02:29	19° \overline{x} 43'19		opposition	4741 Mar 28 11:01	7° $\underline{9}$ 55'10 4°02'36
	4736 Jan 11 10:50	0° $\overline{3}$		greatest brilliancy	4741 Mar 28 05:19	8° $\underline{9}$ 00'52 -1.2m
	4736 Feb 24 04:36	0° \approx			4741 Apr 21 09:46	30° \overline{R} \overline{m}
	4736 Apr 06 11:11	0° \overline{H}		direct	4741 May 07 20:27	28° \overline{m} 16'30
	4736 May 17 13:27	0° \overline{Y}			4741 May 25 10:14	0° $\underline{9}$
	4736 Jun 27 02:34	0° $\overline{8}$			4741 Aug 08 05:28	0° \overline{m}
	4736 Aug 07 09:00	0° \overline{II}		desc. node	4741 Aug 17 23:28	5° \overline{m} 17'44
	4736 Sep 21 13:09	0° $\overline{3}$			4741 Sep 28 21:38	0° \overline{x}
asc. node	4736 Nov 05 08:26	21° $\overline{3}$ 53'27			4741 Nov 13 21:08	0° $\overline{3}$
retrograde	4736 Dec 02 03:03	26° $\overline{3}$ 37'42			4741 Dec 26 07:29	0° \approx
min. Earth dist.	4736 Dec 31 07:54	20° $\overline{3}$ 42'56	0.49385 AU		4742 Feb 04 07:09	0° \overline{H}
greatest brilliancy	4737 Jan 06 23:45	18° $\overline{3}$ 16'18	-2.1m	evening set	4742 Feb 05 13:32	0° \overline{H} 58'22
opposition	4737 Jan 08 10:28	17° $\overline{3}$ 44'15	3°18'10		4742 Mar 14 18:57	0° \overline{Y}
direct	4737 Feb 11 08:47	10° $\overline{3}$ 28'52				
	4737 Apr 18 06:17	0° $\underline{9}$		conjunction	4742 Apr 11 21:07	22° \overline{Y} 12'27 0°-48'-12
	4737 Jun 13 17:41	0° \overline{m}		minimum elong	4742 Apr 12 00:29	22° \overline{Y} 19'06 0°48'12

	4742 Apr 21 17:39	0°♄		greatest brilliancy	4747 Jul 26 01:43	2°≈38'44	-2.2m
max. Earth dist.	4742 May 01 15:17	7°♄48'28	2.36930 AU	min. Earth dist.	4747 Aug 01 18:21	0°≈24'16	0.47468 AU
	4742 May 30 01:09	0°♂			4747 Aug 03 00:24	30°♄♂	
morning rise	4742 Jun 22 15:50	18°♂04'22		direct	4747 Aug 30 11:20	25°♂04'42	
asc. node	4742 Jun 28 04:56	22°♂15'19			4747 Sep 27 04:34	0°≈	
	4742 Jul 08 13:31	0°♄			4747 Nov 23 14:49	0°♄	
	4742 Aug 19 00:07	0°♂			4748 Jan 05 17:16	0°♄	
	4742 Oct 02 00:15	0°♄			4748 Feb 15 06:30	0°♄	
	4742 Nov 18 12:33	0°♂		asc. node	4748 Feb 18 02:42	2°♄06'59	
	4743 Jan 11 22:44	0°♂			4748 Mar 26 19:06	0°♂	
retrograde	4743 Mar 22 17:38	20°♂47'23			4748 May 07 10:42	0°♄	
opposition	4743 May 01 09:13	11°♂29'02	2°14'31		4748 Jun 19 18:25	0°♂	
greatest brilliancy	4743 May 01 16:24	11°♂21'58	-1.3m		4748 Aug 03 19:21	0°♄	
min. Earth dist.	4743 May 04 01:04	10°♂26'10	0.66862 AU	evening set	4748 Aug 06 16:25	1°♄53'00	
direct	4743 Jun 11 20:40	1°♂27'31			4748 Sep 19 04:43	0°♂	
desc. node	4743 Jul 05 22:06	4°♂39'05					
	4743 Sep 03 20:52	0°♄		conjunction	4748 Sep 23 17:43	2°♂54'19	1°03'32
	4743 Oct 23 12:51	0°♂		minimum elong	4748 Sep 23 18:29	2°♂55'33	1°03'33
	4743 Dec 05 23:46	0°≈		max. Earth dist.	4748 Sep 29 21:17	6°♂49'59	2.66868 AU
	4744 Jan 15 05:12	0°♄			4748 Nov 05 07:42	0°♂	
greatest brilliancy	4744 Feb 12 13:56	22°♄01'14	1.2m	morning rise	4748 Nov 07 18:46	1°♂33'39	
	4744 Feb 22 17:22	0°♄			4748 Dec 22 15:04	0°♄	
	4744 Mar 31 16:38	0°♄			4749 Feb 07 21:11	0°♂	
evening set	4744 Apr 16 18:22	12°♄37'43		desc. node	4749 Feb 24 18:34	10°♂42'52	
	4744 May 09 03:10	0°♂			4749 Mar 27 07:41	0°≈	
asc. node	4744 May 15 03:25	4°♂36'55			4749 May 14 22:07	0°♄	
	4744 Jun 17 20:47	0°♄			4749 Jul 07 20:36	0°♄	
				retrograde	4749 Sep 03 05:44	16°♄37'37	
conjunction	4744 Jun 22 10:33	3°♄22'14	0°25'06	opposition	4749 Oct 03 02:50	11°♄41'44	-5°-53'-20
minimum elong	4744 Jun 22 08:42	3°♄18'50	0°25'04	greatest brilliancy	4749 Oct 03 16:14	11°♄32'53	-2.9m
	4744 Jul 29 11:50	0°♂		min. Earth dist.	4749 Oct 04 12:09	11°♄19'45	0.37159 AU
max. Earth dist.	4744 Aug 04 22:52	4°♂31'11	2.49667 AU	direct	4749 Nov 02 00:51	6°♄40'20	
morning rise	4744 Aug 20 23:44	15°♂35'29		asc. node	4750 Jan 05 01:07	27°♄58'55	
	4744 Sep 11 07:56	0°♄			4750 Jan 08 16:39	0°♄	
	4744 Oct 27 12:36	0°♂			4750 Feb 26 15:54	0°♂	
	4744 Dec 15 11:58	0°♂			4750 Apr 13 14:55	0°♄	
	4745 Feb 07 16:13	0°♄			4750 May 29 15:26	0°♂	
retrograde	4745 Apr 29 18:11	25°♄56'09			4750 Jul 15 10:13	0°♄	
desc. node	4745 May 22 20:33	22°♄34'48			4750 Aug 31 19:25	0°♂	
opposition	4745 Jun 06 11:05	17°♄35'04	0°-34'-48	evening set	4750 Sep 14 18:53	8°♂49'49	
greatest brilliancy	4745 Jun 06 15:44	17°♄30'40	-1.6m		4750 Oct 18 04:49	0°♂	
min. Earth dist.	4745 Jun 12 18:27	15°♄11'44	0.59852 AU	max. Earth dist.	4750 Oct 22 19:01	2°♂55'19	2.67412 AU
direct	4745 Jul 17 07:37	7°♄46'07					
	4745 Sep 23 21:32	0°♂		conjunction	4750 Oct 30 01:56	7°♂34'10	0°37'50
	4745 Nov 11 08:56	0°≈		minimum elong	4750 Oct 30 02:55	7°♂35'43	0°37'50
	4745 Dec 23 03:41	0°♄			4750 Dec 03 22:46	0°♄	
	4746 Jan 31 08:53	0°♄		morning rise	4750 Dec 13 02:44	5°♄57'37	
	4746 Mar 10 20:31	0°♄		desc. node	4751 Jan 12 17:00	26°♄04'58	
asc. node	4746 Apr 02 03:40	17°♄15'33			4751 Jan 18 14:24	0°♂	
	4746 Apr 18 19:50	0°♂			4751 Mar 03 23:39	0°≈	
	4746 May 29 03:25	0°♄			4751 Apr 16 04:04	0°♄	
evening set	4746 Jun 20 19:17	16°♄17'32			4751 May 28 10:09	0°♄	
	4746 Jul 10 07:52	0°♂			4751 Jul 09 12:31	0°♄	
					4751 Aug 22 15:37	0°♂	
conjunction	4746 Aug 14 18:44	24°♂10'08	1°04'29		4751 Oct 20 12:46	0°♄	
minimum elong	4746 Aug 14 17:46	24°♂08'32	1°04'28	retrograde	4751 Nov 13 00:20	3°♄45'04	
	4746 Aug 23 12:29	0°♄		asc. node	4751 Nov 23 01:05	2°♄59'45	
max. Earth dist.	4746 Sep 06 04:57	9°♄02'22	2.60831 AU		4751 Dec 05 23:44	30°♄♂	
morning rise	4746 Oct 03 06:56	26°♄38'25		min. Earth dist.	4751 Dec 10 02:23	28°♂42'39	0.44000 AU
	4746 Oct 08 12:29	0°♂		opposition	4751 Dec 18 08:16	25°♂55'43	1°32'53
	4746 Nov 25 00:00	0°♂		greatest brilliancy	4751 Dec 17 13:42	26°♂11'30	-2.5m
	4747 Jan 12 23:10	0°♄		direct	4752 Jan 19 09:46	19°♂33'36	
	4747 Mar 05 14:32	0°♂			4752 Mar 03 20:19	0°♄	
desc. node	4747 Apr 09 19:38	18°♂26'12			4752 May 02 12:02	0°♂	
	4747 May 06 03:11	0°≈			4752 Jun 23 00:08	0°♄	
retrograde	4747 Jun 20 04:17	9°≈57'51			4752 Aug 11 14:32	0°♂	
opposition	4747 Jul 24 04:39	3°≈16'45	-4°-32'-32		4752 Sep 28 22:41	0°♂	

evening set	4752 Oct 20 06:26	13° \mathbb{M} 31'45			4757 Jun 06 15:48	0° \mathbb{I}		
	4752 Nov 14 18:16	0° \mathbb{X}		asc. node	4757 Jul 14 22:10	29° \mathbb{I} 05'24		
max. Earth dist.	4752 Nov 14 13:18	29° \mathbb{M} 51'53	2.62542 AU		4757 Jul 16 03:31	0° \mathbb{S}		
desc. node	4752 Nov 29 16:14	9° \mathbb{X} 48'21			4757 Aug 26 14:27	0° \mathbb{Q}		
					4757 Oct 09 21:13	0° \mathbb{M}		
conjunction	4752 Dec 04 20:03	13° \mathbb{X} 13'44	0°-2'-52		4757 Nov 27 14:10	0° \mathbb{L}		
minimum elong	4752 Dec 04 19:59	13° \mathbb{X} 13'37	0°02'53		4758 Jan 28 00:59	0° \mathbb{M}		
behind sun begin	4752 Dec 04 00:58	12° \mathbb{X} 42'02		retrograde	4758 Mar 09 01:56	8° \mathbb{M} 10'32		
behind sun end	4752 Dec 05 14:59	13° \mathbb{X} 45'14			4758 Apr 14 15:07	30° \mathbb{R} \mathbb{L}		
	4752 Dec 29 17:55	0° \mathbb{Z}		opposition	4758 Apr 18 03:19	28° \mathbb{L} 36'52	3°03'08	
morning rise	4753 Jan 20 05:53	14° \mathbb{Z} 48'35		greatest brilliancy	4758 Apr 18 07:17	28° \mathbb{L} 32'56	-1.2m	
	4753 Feb 10 19:51	0° \approx		min. Earth dist.	4758 Apr 19 07:21	28° \mathbb{L} 09'04	0.67842 AU	
	4753 Mar 24 04:34	0° \mathbb{X}		direct	4758 May 29 08:54	18° \mathbb{L} 41'12		
	4753 May 03 05:27	0° \mathbb{Y}			4758 Jul 17 04:10	0° \mathbb{M}		
	4753 Jun 11 13:29	0° \mathbb{X}		desc. node	4758 Jul 22 12:33	2° \mathbb{M} 13'05		
	4753 Jul 21 03:20	0° \mathbb{I}			4758 Sep 14 07:39	0° \mathbb{X}		
	4753 Aug 31 10:28	0° \mathbb{S}			4758 Oct 31 23:09	0° \mathbb{Z}		
asc. node	4753 Oct 10 00:02	26° \mathbb{S} 00'22			4758 Dec 13 21:03	0° \approx		
	4753 Oct 16 17:14	0° \mathbb{Q}			4759 Jan 22 22:55	0° \mathbb{X}		
retrograde	4753 Dec 28 19:56	26° \mathbb{Q} 16'15			4759 Mar 02 10:09	0° \mathbb{Y}		
min. Earth dist.	4754 Jan 30 13:05	19° \mathbb{Q} 03'37	0.57191 AU	evening set	4759 Mar 19 15:33	13° \mathbb{Y} 37'12		
opposition	4754 Feb 05 23:49	16° \mathbb{Q} 32'27	4°32'57		4759 Apr 09 08:20	0° \mathbb{X}		
greatest brilliancy	4754 Feb 04 13:17	17° \mathbb{Q} 06'15	-1.7m		4759 May 17 16:40	0° \mathbb{I}		
direct	4754 Mar 14 12:10	8° \mathbb{Q} 14'13						
	4754 May 25 14:11	0° \mathbb{M}		conjunction	4759 May 27 22:32	7° \mathbb{I} 52'30	0°-3'-26	
	4754 Jul 21 01:15	0° \mathbb{L}		minimum elong	4759 May 27 22:52	7° \mathbb{I} 53'09	0°03'27	
	4754 Sep 09 18:07	0° \mathbb{M}		behind sun begin	4759 May 26 18:30	6° \mathbb{I} 58'52		
desc. node	4754 Oct 17 15:25	23° \mathbb{M} 44'39		behind sun end	4759 May 29 03:15	8° \mathbb{I} 47'23		
	4754 Oct 27 07:59	0° \mathbb{X}		asc. node	4759 Jun 01 21:25	11° \mathbb{I} 39'26		
evening set	4754 Nov 28 00:12	20° \mathbb{X} 59'08			4759 Jun 26 07:00	0° \mathbb{S}		
	4754 Dec 11 05:36	0° \mathbb{Z}		max. Earth dist.	4759 Jul 18 01:21	15° \mathbb{S} 55'57	2.44216 AU	
max. Earth dist.	4754 Dec 14 00:33	1° \mathbb{Z} 55'15	2.52641 AU	morning rise	4759 Aug 01 04:51	26° \mathbb{S} 03'40		
					4759 Aug 06 18:33	0° \mathbb{Q}		
conjunction	4755 Jan 16 11:37	25° \mathbb{Z} 30'08	0°-47'00		4759 Sep 19 13:40	0° \mathbb{M}		
minimum elong	4755 Jan 16 10:03	25° \mathbb{Z} 27'19	0°47'00		4759 Nov 05 01:02	0° \mathbb{L}		
	4755 Jan 22 17:05	0° \approx			4759 Dec 25 05:53	0° \mathbb{M}		
	4755 Mar 04 04:38	0° \mathbb{X}			4760 Feb 23 06:34	0° \mathbb{X}		
morning rise	4755 Mar 12 03:47	6° \mathbb{X} 02'40		retrograde	4760 Apr 13 16:04	11° \mathbb{X} 52'29		
	4755 Apr 12 06:29	0° \mathbb{Y}		opposition	4760 May 22 07:25	3° \mathbb{X} 05'15	0°38'46	
	4755 May 20 16:24	0° \mathbb{X}		greatest brilliancy	4760 May 22 11:45	3° \mathbb{X} 01'04	-1.4m	
	4755 Jun 28 07:13	0° \mathbb{I}		min. Earth dist.	4760 May 27 05:47	1° \mathbb{X} 10'56	0.63342 AU	
	4755 Aug 07 02:20	0° \mathbb{S}			4760 May 30 08:52	30° \mathbb{R} \mathbb{M}		
asc. node	4755 Aug 27 22:09	15° \mathbb{S} 05'18		desc. node	4760 Jun 08 11:21	26° \mathbb{M} 53'31		
	4755 Sep 18 06:57	0° \mathbb{Q}		direct	4760 Jul 02 16:01	23° \mathbb{M} 05'19		
	4755 Nov 04 02:10	0° \mathbb{M}			4760 Aug 07 11:27	0° \mathbb{X}		
	4756 Jan 06 05:36	0° \mathbb{L}			4760 Oct 06 12:50	0° \mathbb{Z}		
retrograde	4756 Feb 03 18:28	4° \mathbb{L} 41'21			4760 Nov 21 00:03	0° \approx		
	4756 Mar 01 06:06	30° \mathbb{R} \mathbb{M}			4760 Dec 31 21:44	0° \mathbb{X}		
min. Earth dist.	4756 Mar 12 09:03	25° \mathbb{M} 48'51	0.65759 AU		4761 Feb 08 17:25	0° \mathbb{Y}		
greatest brilliancy	4756 Mar 14 11:51	24° \mathbb{M} 58'01	-1.3m		4761 Mar 18 22:14	0° \mathbb{X}		
opposition	4756 Mar 15 01:41	24° \mathbb{M} 44'11	4°28'04	asc. node	4761 Apr 18 19:44	24° \mathbb{X} 01'08		
direct	4756 Apr 23 15:57	15° \mathbb{M} 21'37			4761 Apr 26 14:54	0° \mathbb{I}		
	4756 Jun 19 23:05	0° \mathbb{L}		evening set	4761 May 28 18:36	24° \mathbb{I} 12'01		
	4756 Aug 17 23:43	0° \mathbb{M}			4761 Jun 05 15:33	0° \mathbb{S}		
desc. node	4756 Sep 03 14:01	9° \mathbb{M} 37'33			4761 Jul 17 13:13	0° \mathbb{Q}		
	4756 Oct 06 19:33	0° \mathbb{X}						
	4756 Nov 21 07:09	0° \mathbb{Z}		conjunction	4761 Jul 27 00:45	6° \mathbb{Q} 35'12	0°54'59	
	4757 Jan 02 15:46	0° \approx		minimum elong	4761 Jul 26 22:56	6° \mathbb{Q} 32'04	0°54'57	
evening set	4757 Jan 13 12:19	7° \approx 59'07		max. Earth dist.	4761 Aug 26 03:13	27° \mathbb{Q} 03'31	2.57025 AU	
max. Earth dist.	4757 Feb 03 19:03	23° \approx 57'19	2.39661 AU		4761 Aug 30 12:53	0° \mathbb{M}		
	4757 Feb 11 17:20	0° \mathbb{X}		morning rise	4761 Sep 17 15:27	11° \mathbb{M} 57'54		
					4761 Oct 15 12:14	0° \mathbb{L}		
conjunction	4757 Mar 14 06:55	23° \mathbb{X} 41'39	-1°-3'-12		4761 Dec 02 08:35	0° \mathbb{M}		
minimum elong	4757 Mar 14 08:17	23° \mathbb{X} 44'20	1°03'13		4762 Jan 21 14:09	0° \mathbb{X}		
	4757 Mar 22 07:45	0° \mathbb{Y}			4762 Mar 18 12:16	0° \mathbb{Z}		
	4757 Apr 29 08:04	0° \mathbb{X}		desc. node	4762 Apr 26 09:57	15° \mathbb{Z} 46'39		
morning rise	4757 May 23 11:23	18° \mathbb{X} 58'04		retrograde	4762 May 28 19:59	21° \mathbb{Z} 15'22		

opposition	4762 Jul 03 13:36	13°  48'03	-2°-53'-40	evening set	4767 Oct 07 01:49	0°  10'14	
greatest brilliancy	4762 Jul 04 18:06	13°  22'26	-1.9m	max. Earth dist.	4767 Nov 05 22:38	19°  14'23	2.65105 AU
min. Earth dist.	4762 Jul 11 16:03	10°  54'05	0.52765 AU				
direct	4762 Aug 11 18:19	4°  42'09		conjunction	4767 Nov 21 04:05	29°  06'08	0°14'09
	4762 Oct 22 02:24	0°  ≈		minimum elong	4767 Nov 21 04:31	29°  06'51	0°14'10
	4762 Dec 06 18:16	0°  ✕		behind sun begin	4767 Nov 20 19:33	28°  52'16	
	4763 Jan 16 10:47	0°  Y		behind sun end	4767 Nov 21 13:29	29°  21'26	
	4763 Feb 24 19:27	0°  8			4767 Nov 22 13:09	0°  ✗	
asc. node	4763 Mar 06 19:07	7°  836'29		desc. node	4767 Dec 17 06:55	16°  ✗17'09	
	4763 Apr 05 11:48	0°  II		morning rise	4768 Jan 05 03:36	28°  ✗55'34	
	4763 May 16 11:02	0°  ☾			4768 Jan 06 17:44	0°  ☾	
	4763 Jun 28 05:15	0°  Ω			4768 Feb 19 05:55	0°  ≈	
evening set	4763 Jul 21 12:49	15°  Ω49'18			4768 Apr 01 04:08	0°  ✕	
	4763 Aug 11 20:17	0°  ൬			4768 May 11 20:10	0°  Y	
					4768 Jun 20 20:14	0°  8	
conjunction	4763 Sep 09 15:59	18°  ൬49'29	1°07'33		4768 Jul 31 06:34	0°  II	
minimum elong	4763 Sep 09 16:15	18°  ൬49'55	1°07'32		4768 Sep 12 07:14	0°  ☾	
max. Earth dist.	4763 Sep 21 15:18	26°  ൬32'58	2.65158 AU	asc. node	4768 Oct 26 16:21	25°  ☾42'17	
	4763 Sep 27 00:15	0°  ♄			4768 Nov 05 07:49	0°  Ω	
morning rise	4763 Oct 25 23:20	18°  ♄28'23		retrograde	4768 Dec 12 08:55	8°  Ω28'33	
	4763 Nov 13 04:23	0°  ♍		min. Earth dist.	4769 Jan 11 20:13	2°  Ω05'09	0.52311 AU
	4763 Dec 30 22:43	0°  ✗			4769 Jan 17 08:46	30°  R☾	
	4764 Feb 17 08:15	0°  ☾		greatest brilliancy	4769 Jan 17 22:42	29°  ☾46'44	-2.0m
desc. node	4764 Mar 13 09:36	15°  ☾13'42		opposition	4769 Jan 19 12:08	29°  ☾11'13	3°56'18
	4764 Apr 07 08:14	0°  ≈		direct	4769 Feb 23 09:32	21°  ☾30'53	
	4764 Jun 02 04:52	0°  ✕			4769 Apr 04 21:50	0°  Ω	
retrograde	4764 Aug 01 14:26	17°  ✕08'20			4769 Jun 06 22:18	0°  ൬	
opposition	4764 Sep 01 13:28	11°  ✕47'47	-6°-30'-38		4769 Jul 29 13:25	0°  ♄	
greatest brilliancy	4764 Sep 03 09:45	11°  ✕15'45	-2.7m		4769 Sep 17 02:01	0°  ♍	
min. Earth dist.	4764 Sep 07 15:14	10°  ✕03'04	0.39831 AU	desc. node	4769 Nov 03 05:48	29°  ♍58'27	
direct	4764 Oct 04 06:13	5°  ✕41'03			4769 Nov 03 06:45	0°  ✗	
	4764 Dec 10 22:17	0°  Y		evening set	4769 Nov 12 08:29	5°  ✗56'31	
asc. node	4765 Jan 21 18:29	26°  Y50'03		max. Earth dist.	4769 Dec 01 12:15	18°  ✗41'08	2.57075 AU
	4765 Jan 26 10:21	0°  8			4769 Dec 18 04:06	0°  ☾	
	4765 Mar 10 19:18	0°  II					
	4765 Apr 23 07:07	0°  ☾		conjunction	4769 Dec 29 17:08	7°  ☾58'04	0°-30'-40
	4765 Jun 06 21:40	0°  Ω		minimum elong	4769 Dec 29 16:02	7°  ☾56'09	0°30'40
	4765 Jul 22 19:47	0°  ൬			4770 Jan 29 20:26	0°  ≈	
evening set	4765 Aug 31 03:54	25°  ൬11'32		morning rise	4770 Feb 18 02:37	14°  ≈00'42	
	4765 Sep 07 17:17	0°  ♄			4770 Mar 11 15:12	0°  ✕	
max. Earth dist.	4765 Oct 14 00:32	23°  ♄03'23	2.67865 AU		4770 Apr 20 00:46	0°  Y	
					4770 May 28 17:31	0°  8	
conjunction	4765 Oct 16 03:13	24°  ♄23'52	0°50'02		4770 Jul 06 14:16	0°  II	
minimum elong	4765 Oct 16 04:17	24°  ♄25'34	0°50'02		4770 Aug 15 17:11	0°  ☾	
	4765 Oct 24 22:38	0°  ♍		asc. node	4770 Sep 13 16:27	20°  ☾32'36	
morning rise	4765 Nov 29 04:33	22°  ♍30'42			4770 Sep 27 16:10	0°  Ω	
	4765 Dec 10 20:04	0°  ✗			4770 Nov 16 09:54	0°  ൬	
	4766 Jan 25 23:10	0°  ☾		retrograde	4771 Jan 21 00:35	20°  ൬52'59	
desc. node	4766 Jan 29 08:40	2°  ☾13'51		min. Earth dist.	4771 Feb 25 20:49	12°  ൬35'39	0.63125 AU
	4766 Mar 12 05:15	0°  ≈		greatest brilliancy	4771 Mar 01 03:23	11°  ൬17'21	-1.4m
	4766 Apr 25 17:12	0°  ✕		opposition	4771 Mar 02 02:03	10°  ൬54'44	4°42'29
	4766 Jun 08 21:58	0°  Y		direct	4771 Apr 09 15:52	1°  ൬52'54	
	4766 Jul 24 10:05	0°  8			4771 Jul 04 09:29	0°  ♄	
	4766 Sep 18 15:04	0°  II			4771 Aug 27 14:58	0°  ♍	
retrograde	4766 Oct 20 01:35	6°  II23'15		desc. node	4771 Sep 21 04:43	14°  ♍49'50	
min. Earth dist.	4766 Nov 15 08:39	1°  II56'12	0.39415 AU		4771 Oct 15 07:31	0°  ✗	
opposition	4766 Nov 21 20:07	0°  II00'11	-1°-13'-56		4771 Nov 29 11:42	0°  ☾	
greatest brilliancy	4766 Nov 21 10:44	0°  II07'13	-2.8m	evening set	4771 Dec 25 10:34	18°  ☾10'01	
	4766 Nov 21 20:22	30°  R8		max. Earth dist.	4772 Jan 09 00:22	28°  ☾39'35	2.44746 AU
asc. node	4766 Dec 09 16:46	25°  834'58			4772 Jan 10 20:33	0°  ≈	
direct	4766 Dec 21 23:23	24°  834'31					
	4767 Jan 21 08:09	0°  II		conjunction	4772 Feb 18 05:20	28°  ≈36'23	-1°-4'-5
	4767 Mar 24 20:27	0°  ☾		minimum elong	4772 Feb 18 04:31	28°  ≈34'50	1°04'05
	4767 May 14 11:25	0°  Ω			4772 Feb 20 01:14	0°  ✕	
	4767 Jul 02 10:24	0°  ൬			4772 Mar 29 19:26	0°  Y	
	4767 Aug 19 22:23	0°  ♄		greatest brilliancy	4772 Apr 17 22:42	15°  Y02'08	1.2m
	4767 Oct 06 19:21	0°  ♍		morning rise	4772 Apr 22 11:10	18°  Y35'39	

	4772 May 06 22:44	0°♄			4777 Sep 13 01:42	0°♄
	4772 Jun 14 08:10	0°♄			4777 Nov 04 12:39	0°♄
	4772 Jul 23 21:06	0°♄			4777 Dec 17 05:18	0°♄
asc. node	4772 Jul 31 14:49	5°♄43'03			4778 Jan 25 19:55	0°♄
	4772 Sep 03 11:16	0°♄			4778 Mar 05 13:17	0°♄
	4772 Oct 18 06:52	0°♄		asc. node	4778 Mar 23 11:18	13°♄48'52
	4772 Dec 08 04:35	0°♄			4778 Apr 13 17:11	0°♄
retrograde	4773 Feb 23 17:19	25°♄33'43			4778 May 24 05:04	0°♄
opposition	4773 Apr 05 00:28	15°♄48'03	3°43'12	evening set	4778 Jul 02 14:04	27°♄56'46
greatest brilliancy	4773 Apr 04 22:43	15°♄49'47	-1.2m		4778 Jul 05 13:09	0°♄
min. Earth dist.	4773 Apr 04 16:17	15°♄56'12	0.67805 AU		4778 Aug 18 20:20	0°♄
direct	4773 May 15 18:53	6°♄02'19				
	4773 Jul 31 19:43	0°♄		conjunction	4778 Aug 24 13:42	3°♄47'17 1°07'07
desc. node	4773 Aug 08 03:06	3°♄43'25		minimum elong	4778 Aug 24 13:14	3°♄46'33 1°07'06
	4773 Sep 23 08:48	0°♄		max. Earth dist.	4778 Sep 12 02:13	15°♄55'51 2.62605 AU
	4773 Nov 08 21:00	0°♄			4778 Oct 03 20:34	0°♄
	4773 Dec 21 11:40	0°♄		morning rise	4778 Oct 11 17:32	5°♄02'31
	4774 Jan 30 12:19	0°♄			4778 Nov 20 04:14	0°♄
evening set	4774 Feb 19 21:32	15°♄47'23			4779 Jan 07 14:38	0°♄
	4774 Mar 09 23:57	0°♄			4779 Feb 26 18:13	0°♄
	4774 Apr 16 22:02	0°♄		desc. node	4779 Mar 31 00:13	18°♄09'48
					4779 Apr 22 19:38	0°♄
conjunction	4774 Apr 28 16:22	9°♄16'48	0°-33'-47	retrograde	4779 Jul 04 13:36	22°♄23'50
minimum elong	4774 Apr 28 19:28	9°♄22'53	0°33'47	opposition	4779 Aug 06 09:52	16°♄11'45 -5°-26'-17
	4774 May 25 05:04	0°♄		greatest brilliancy	4779 Aug 08 13:00	15°♄30'36 -2.4m
max. Earth dist.	4774 Jun 16 00:36	16°♄42'57	2.38913 AU	min. Earth dist.	4779 Aug 14 16:58	13°♄32'23 0.44524 AU
asc. node	4774 Jun 18 13:12	18°♄37'42		direct	4779 Sep 11 07:10	8°♄39'32
	4774 Jul 03 17:11	0°♄			4779 Nov 12 17:37	0°♄
morning rise	4774 Jul 08 01:20	3°♄13'05			4779 Dec 29 00:14	0°♄
	4774 Aug 14 02:49	0°♄		asc. node	4780 Feb 08 10:04	29°♄46'17
	4774 Sep 26 23:21	0°♄			4780 Feb 08 17:36	0°♄
	4774 Nov 12 22:59	0°♄			4780 Mar 20 22:18	0°♄
	4775 Jan 04 05:58	0°♄			4780 May 02 01:26	0°♄
retrograde	4775 Mar 30 20:14	28°♄38'03			4780 Jun 14 17:34	0°♄
opposition	4775 May 09 04:36	19°♄29'41	1°41'53		4780 Jul 30 00:35	0°♄
greatest brilliancy	4775 May 09 12:00	19°♄22'27	-1.3m	evening set	4780 Aug 15 21:28	10°♄57'03
min. Earth dist.	4775 May 12 16:07	18°♄07'58	0.65874 AU		4780 Sep 14 13:17	0°♄
direct	4775 Jun 19 16:59	9°♄27'12				
desc. node	4775 Jun 26 01:50	9°♄41'52		conjunction	4780 Oct 02 00:55	11°♄08'57 0°59'29
	4775 Aug 26 18:30	0°♄		minimum elong	4780 Oct 02 01:52	11°♄10'27 0°59'29
	4775 Oct 17 15:30	0°♄		max. Earth dist.	4780 Oct 05 02:23	13°♄05'52 2.67470 AU
	4775 Nov 30 16:43	0°♄			4780 Oct 31 16:33	0°♄
	4776 Jan 10 03:24	0°♄		morning rise	4780 Nov 15 14:04	9°♄28'05
	4776 Feb 17 18:08	0°♄			4780 Dec 17 19:35	0°♄
	4776 Mar 26 18:59	0°♄			4781 Feb 02 14:28	0°♄
evening set	4776 May 02 14:56	28°♄43'07		desc. node	4781 Feb 14 22:58	7°♄57'28
	4776 May 04 06:55	0°♄			4781 Mar 21 02:26	0°♄
asc. node	4776 May 05 12:55	0°♄57'36			4781 May 06 18:14	0°♄
	4776 Jun 13 02:03	0°♄			4781 Jun 24 02:44	0°♄
					4781 Aug 23 18:25	0°♄
conjunction	4776 Jul 05 18:42	16°♄31'24	0°38'11	retrograde	4781 Sep 21 03:28	4°♄58'44
minimum elong	4776 Jul 05 16:29	16°♄27'26	0°38'09	min. Earth dist.	4781 Oct 19 19:01	0°♄17'23 0.37044 AU
	4776 Jul 24 18:09	0°♄			4781 Oct 20 20:52	30°♄
max. Earth dist.	4776 Aug 13 10:01	13°♄38'35	2.52457 AU	opposition	4781 Oct 21 14:00	29°♄48'28 -4°-31'-23
morning rise	4776 Aug 31 13:06	25°♄57'08		greatest brilliancy	4781 Oct 21 09:34	29°♄51'27 -2.9m
	4776 Sep 06 14:10	0°♄		direct	4781 Nov 20 01:00	24°♄54'56
	4776 Oct 22 15:11	0°♄			4781 Dec 18 18:05	0°♄
	4776 Dec 10 01:47	0°♄		asc. node	4781 Dec 26 10:19	2°♄45'51
	4777 Jan 31 08:11	0°♄			4782 Feb 17 07:40	0°♄
	4777 Apr 08 21:05	0°♄			4782 Apr 06 18:53	0°♄
retrograde	4777 May 09 15:28	4°♄56'39			4782 May 23 22:29	0°♄
desc. node	4777 May 13 01:23	4°♄52'19			4782 Jul 10 07:49	0°♄
	4777 Jun 06 23:15	30°♄			4782 Aug 27 00:54	0°♄
opposition	4777 Jun 15 17:40	26°♄52'38	-1°-22'-29	evening set	4782 Sep 22 23:29	16°♄57'37
greatest brilliancy	4777 Jun 16 05:48	26°♄41'19	-1.7m		4782 Oct 13 13:58	0°♄
min. Earth dist.	4777 Jun 22 18:35	24°♄15'17	0.57521 AU	max. Earth dist.	4782 Oct 27 23:17	9°♄09'48 2.66821 AU
direct	4777 Jul 26 03:39	17°♄14'44				

conjunction	4782 Nov 07 01:40	15° \mathbb{M} 37'48	0°29'38		4787 Sep 12 16:44	0° Ω	
minimum elong	4782 Nov 07 02:30	15° \mathbb{M} 39'08	0°29'38		4787 Oct 28 11:14	0° \mathbb{M}	
	4782 Nov 29 07:43	0° \mathbb{M}			4787 Dec 23 03:35	0° Ω	
morning rise	4782 Dec 21 06:47	14° \mathbb{M} 22'22		retrograde	4788 Feb 11 10:31	12° Ω 44'01	
desc. node	4783 Jan 02 21:23	22° \mathbb{M} 43'09		min. Earth dist.	4788 Mar 20 22:45	3° Ω 34'21	0.66766 AU
	4783 Jan 13 19:07	0° \mathbb{Z}		opposition	4788 Mar 22 19:23	2° Ω 49'45	4°14'28
	4783 Feb 26 20:13	0° \approx		greatest brilliancy	4788 Mar 22 10:12	2° Ω 58'55	-1.3m
	4783 Apr 10 12:18	0° \mathbb{H}			4788 Mar 30 01:06	30° \mathbb{R} \mathbb{M}	
	4783 May 22 02:06	0° \mathbb{Y}		direct	4788 May 01 21:31	23° \mathbb{M} 17'43	
	4783 Jul 02 04:49	0° \mathbb{B}			4788 Jun 07 09:37	0° Ω	
	4783 Aug 13 08:47	0° \mathbb{I}			4788 Aug 11 16:53	0° \mathbb{M}	
	4783 Sep 30 05:58	0° \mathbb{S}		desc. node	4788 Aug 24 18:15	7° \mathbb{M} 18'43	
asc. node	4783 Nov 13 09:41	16° \mathbb{S} 43'17			4788 Oct 01 14:19	0° \mathbb{M}	
retrograde	4783 Nov 24 18:24	17° \mathbb{S} 39'06			4788 Nov 16 09:57	0° \mathbb{Z}	
min. Earth dist.	4783 Dec 22 23:52	12° \mathbb{S} 08'14	0.46953 AU		4788 Dec 28 20:56	0° \approx	
greatest brilliancy	4783 Dec 30 01:14	9° \mathbb{S} 37'41	-2.3m	evening set	4789 Jan 26 04:00	21° \approx 02'30	
opposition	4783 Dec 31 07:22	9° \mathbb{S} 10'42	2°40'23		4789 Feb 06 22:18	0° \mathbb{H}	
direct	4784 Feb 02 09:17	2° \mathbb{S} 18'05		max. Earth dist.	4789 Mar 04 22:34	20° \mathbb{H} 09'03	2.37424 AU
	4784 Apr 24 02:30	0° Ω			4789 Mar 17 11:48	0° \mathbb{Y}	
	4784 Jun 17 00:12	0° \mathbb{M}					
	4784 Aug 06 11:13	0° Ω		conjunction	4789 Mar 30 01:34	9° \mathbb{Y} 55'03	0°-56'-31
	4784 Sep 24 04:22	0° \mathbb{M}		minimum elong	4789 Mar 30 04:21	10° \mathbb{Y} 00'31	0°56'31
evening set	4784 Oct 28 12:33	21° \mathbb{M} 49'19			4789 Apr 24 11:15	0° \mathbb{B}	
	4784 Nov 10 03:14	0° \mathbb{M}			4789 Jun 01 18:17	0° \mathbb{I}	
desc. node	4784 Nov 19 20:07	6° \mathbb{M} 21'39		morning rise	4789 Jun 09 19:53	6° \mathbb{I} 13'30	
max. Earth dist.	4784 Nov 20 11:13	6° \mathbb{M} 46'31	2.60815 AU	asc. node	4789 Jul 05 06:09	25° \mathbb{I} 32'34	
					4789 Jul 11 05:24	0° \mathbb{S}	
conjunction	4784 Dec 13 13:18	22° \mathbb{M} 09'53	0°-13'-6		4789 Aug 21 14:38	0° Ω	
minimum elong	4784 Dec 13 12:50	22° \mathbb{M} 09'06	0°13'05		4789 Oct 04 15:19	0° \mathbb{M}	
behind sun begin	4784 Dec 13 01:11	21° \mathbb{M} 49'29			4789 Nov 21 11:32	0° Ω	
behind sun end	4784 Dec 14 00:28	22° \mathbb{M} 28'43			4790 Jan 16 19:15	0° \mathbb{M}	
	4784 Dec 25 02:21	0° \mathbb{Z}		retrograde	4790 Mar 16 19:39	15° \mathbb{M} 51'38	
morning rise	4785 Jan 30 01:56	25° \mathbb{Z} 02'25		opposition	4790 Apr 25 16:48	6° \mathbb{M} 25'53	2°35'39
	4785 Feb 06 01:12	0° \approx		greatest brilliancy	4790 Apr 25 22:50	6° \mathbb{M} 19'56	-1.2m
	4785 Mar 19 04:49	0° \mathbb{H}		min. Earth dist.	4790 Apr 27 16:35	5° \mathbb{M} 38'42	0.67429 AU
	4785 Apr 27 23:47	0° \mathbb{Y}			4790 May 13 11:39	30° \mathbb{R} Ω	
	4785 Jun 06 01:24	0° \mathbb{B}		direct	4790 Jun 06 03:02	26° Ω 26'28	
	4785 Jul 15 07:10	0° \mathbb{I}			4790 Jul 01 16:32	0° \mathbb{M}	
	4785 Aug 25 00:06	0° \mathbb{S}		desc. node	4790 Jul 12 17:04	3° \mathbb{M} 18'12	
asc. node	4785 Sep 30 08:00	24° \mathbb{S} 48'20			4790 Sep 07 18:32	0° \mathbb{M}	
	4785 Oct 08 11:57	0° Ω			4790 Oct 26 13:27	0° \mathbb{Z}	
	4785 Dec 06 03:50	0° \mathbb{M}			4790 Dec 08 19:59	0° \approx	
retrograde	4786 Jan 06 13:27	5° \mathbb{M} 57'29			4791 Jan 18 00:36	0° \mathbb{H}	
	4786 Feb 05 02:16	30° \mathbb{R} Ω			4791 Feb 25 12:41	0° \mathbb{Y}	
min. Earth dist.	4786 Feb 09 10:44	28° Ω 20'22	0.59561 AU	greatest brilliancy	4791 Mar 31 22:46	27° \mathbb{Y} 13'09	1.2m
greatest brilliancy	4786 Feb 13 20:28	26° Ω 36'07	-1.6m		4791 Apr 04 11:15	0° \mathbb{B}	
opposition	4786 Feb 15 03:24	26° Ω 05'35	4°42'18	evening set	4791 Apr 05 01:43	0° \mathbb{B} 28'32	
direct	4786 Mar 24 11:21	17° Ω 29'52			4791 May 12 20:01	0° \mathbb{I}	
	4786 May 15 02:35	0° \mathbb{M}		asc. node	4791 May 23 04:18	7° \mathbb{I} 56'49	
	4786 Jul 14 20:48	0° Ω					
	4786 Sep 04 14:10	0° \mathbb{M}		conjunction	4791 Jun 12 08:30	23° \mathbb{I} 12'58	0°13'37
desc. node	4786 Oct 07 19:10	20° \mathbb{M} 34'08		minimum elong	4791 Jun 12 07:20	23° \mathbb{I} 10'47	0°13'35
	4786 Oct 22 12:52	0° \mathbb{M}		behind sun begin	4791 Jun 11 16:38	22° \mathbb{I} 43'16	
	4786 Dec 06 13:03	0° \mathbb{Z}		behind sun end	4791 Jun 12 22:02	23° \mathbb{I} 38'17	
evening set	4786 Dec 07 12:24	0° \mathbb{Z} 40'08			4791 Jun 21 11:05	0° \mathbb{S}	
max. Earth dist.	4786 Dec 22 07:50	10° \mathbb{Z} 57'23	2.49948 AU	max. Earth dist.	4791 Jul 29 15:38	27° \mathbb{S} 39'29	2.47284 AU
	4787 Jan 18 00:12	0° \approx			4791 Aug 01 23:14	0° Ω	
				morning rise	4791 Aug 13 09:00	7° Ω 58'45	
conjunction	4787 Jan 27 13:14	6° \approx 58'01	0°-55'00		4791 Sep 14 17:18	0° \mathbb{M}	
minimum elong	4787 Jan 27 11:39	6° \approx 55'06	0°55'00		4791 Oct 30 22:58	0° Ω	
	4787 Feb 27 09:42	0° \mathbb{H}			4791 Dec 19 07:39	0° \mathbb{M}	
morning rise	4787 Mar 26 06:03	20° \mathbb{H} 34'58			4792 Feb 13 05:30	0° \mathbb{M}	
	4787 Apr 07 09:02	0° \mathbb{Y}		retrograde	4792 Apr 22 14:58	20° \mathbb{M} 14'43	
	4787 May 15 16:28	0° \mathbb{B}		desc. node	4792 May 29 15:46	12° \mathbb{M} 07'19	
	4787 Jun 23 04:36	0° \mathbb{I}		opposition	4792 May 30 19:15	11° \mathbb{M} 41'06	0°-2'-39
	4787 Aug 01 20:05	0° \mathbb{S}		greatest brilliancy	4791 Dec 06 22:59	22° Ω 42'59	-3.3m
asc. node	4787 Aug 18 07:41	12° \mathbb{S} 03'18		min. Earth dist.	4792 Jun 05 12:20	9° \mathbb{M} 30'07	0.61541 AU

direct	4792 Jul 10 22:51	1°♂46'04		max. Earth dist.	4797 Oct 19 04:36	29°♂16'10	2.67718 AU
	4792 Sep 29 01:01	0°♂			4797 Oct 20 08:10	0°♂	
	4792 Nov 15 01:47	0°≈					
	4792 Dec 26 11:19	0°♂		conjunction	4797 Oct 24 03:13	2°♂24'52	0°43'12
	4793 Feb 03 12:20	0°♀		minimum elong	4797 Oct 24 04:15	2°♂26'31	0°43'12
	4793 Mar 13 20:30	0°♂			4797 Dec 06 03:47	0°♂	
asc. node	4793 Apr 09 04:35	20°♂26'45		morning rise	4797 Dec 07 02:53	0°♂37'20	
	4793 Apr 21 15:46	0°♂		desc. node	4798 Jan 19 12:02	28°♂59'13	
	4793 May 31 18:56	0°♂			4798 Jan 21 00:47	0°♂	
evening set	4793 Jun 11 04:32	7°♂33'49			4798 Mar 06 19:17	0°≈	
	4793 Jul 12 18:55	0°♂			4798 Apr 19 12:46	0°♂	
					4798 Jun 01 12:48	0°♀	
conjunction	4793 Aug 06 23:28	17°♂19'31	1°01'17		4798 Jul 14 17:55	0°♂	
minimum elong	4793 Aug 06 22:08	17°♂17'16	1°01'16		4798 Aug 30 12:26	0°♂	
	4793 Aug 25 19:54	0°♂		retrograde	4798 Nov 03 03:19	22°♂48'47	
max. Earth dist.	4793 Sep 01 19:05	4°♂37'28	2.59231 AU	min. Earth dist.	4798 Nov 29 14:35	18°♂05'37	0.41766 AU
morning rise	4793 Sep 26 18:02	20°♂58'00		asc. node	4798 Nov 30 01:52	17°♂56'50	
	4793 Oct 10 18:22	0°♂		opposition	4798 Dec 07 08:32	15°♂36'36	0°28'28
	4793 Nov 27 08:29	0°♂		greatest brilliancy	4798 Dec 07 02:49	15°♂41'13	-2.6m
	4794 Jan 15 18:19	0°♂		direct	4799 Jan 07 13:21	9°♂40'22	
	4794 Mar 09 19:22	0°♂			4799 Mar 14 05:55	0°♂	
desc. node	4794 Apr 16 14:40	18°♂17'17			4799 May 07 16:29	0°♂	
	4794 May 22 09:41	0°≈			4799 Jun 26 21:58	0°♂	
retrograde	4794 Jun 10 00:13	1°≈57'44			4799 Aug 14 23:50	0°♂	
	4794 Jun 27 18:09	30°♂			4799 Oct 02 03:15	0°♂	
opposition	4794 Jul 14 20:07	24°♂54'55	-3°-49'-42	evening set	4799 Oct 15 04:13	8°♂15'41	
greatest brilliancy	4794 Jul 16 10:35	24°♂21'26	-2.1m	max. Earth dist.	4799 Nov 11 10:15	25°♂45'47	2.63781 AU
min. Earth dist.	4794 Jul 23 07:49	21°♂58'28	0.49876 AU		4799 Nov 17 22:37	0°♂	
direct	4794 Aug 22 02:26	16°♂15'42					
	4794 Oct 10 06:45	0°≈		conjunction	4799 Nov 29 11:24	7°♂33'24	0°04'25
	4794 Nov 29 05:08	0°♂		minimum elong	4799 Nov 29 11:32	7°♂33'37	0°04'26
	4795 Jan 10 01:01	0°♀		behind sun begin	4799 Nov 28 17:05	7°♂03'16	
	4795 Feb 18 23:38	0°♂		behind sun end	4799 Nov 30 05:59	8°♂03'59	
asc. node	4795 Feb 25 04:05	4°♂39'46		desc. node	4799 Dec 07 11:10	12°♂50'15	
	4795 Mar 31 01:24	0°♂			4800 Jan 02 01:14	0°♂	
	4795 May 11 07:57	0°♂		morning rise	4800 Jan 14 03:53	8°♂16'01	
	4795 Jun 23 08:00	0°♂			4800 Feb 14 08:27	0°≈	
evening set	4795 Jul 31 11:53	25°♂37'34			4800 Mar 26 23:38	0°♂	
	4795 Aug 07 03:06	0°♂			4800 May 06 07:17	0°♀	
					4800 Jun 14 21:58	0°♂	
conjunction	4795 Sep 18 09:20	27°♂26'25	1°05'41		4800 Jul 24 18:55	0°♂	
minimum elong	4795 Sep 18 09:55	27°♂27'22	1°05'40		4800 Sep 04 14:49	0°♂	
	4795 Sep 22 09:03	0°♂		asc. node	4800 Oct 17 01:28	26°♂50'31	
max. Earth dist.	4795 Sep 27 01:47	3°♂00'34	2.66203 AU		4800 Oct 22 18:47	0°♂	
morning rise	4795 Nov 02 22:21	26°♂28'16		retrograde	4800 Dec 21 22:18	19°♂20'24	
	4795 Nov 08 12:01	0°♂		min. Earth dist.	4801 Jan 22 15:39	12°♂29'42	0.55093 AU
	4795 Dec 25 23:39	0°♂		greatest brilliancy	4801 Jan 28 04:12	10°♂22'00	-1.8m
	4796 Feb 11 16:39	0°♂		opposition	4801 Jan 29 16:59	9°♂46'27	4°21'32
desc. node	4796 Mar 03 13:33	13°♂01'28		direct	4801 Mar 06 13:08	1°♂44'10	
	4796 Mar 31 02:04	0°≈			4801 May 30 08:26	0°♂	
	4796 May 20 21:45	0°♂			4801 Jul 23 22:53	0°♂	
	4796 Jul 25 21:13	0°♀			4801 Sep 12 03:36	0°♂	
retrograde	4796 Aug 19 17:04	3°♀36'36		desc. node	4801 Oct 24 10:26	26°♂39'18	
	4796 Sep 13 14:14	30°♂			4801 Oct 29 14:24	0°♂	
opposition	4796 Sep 18 20:15	28°♂36'17	-6°-26'-24	evening set	4801 Nov 21 03:22	14°♂50'31	
greatest brilliancy	4796 Sep 20 01:40	28°♂16'22	-2.8m	max. Earth dist.	4801 Dec 08 09:10	26°♂28'12	2.54700 AU
min. Earth dist.	4796 Sep 22 15:23	27°♂34'45	0.37998 AU		4801 Dec 13 13:02	0°♂	
direct	4796 Oct 19 18:27	23°♂12'16					
	4796 Nov 21 18:38	0°♀		conjunction	4802 Jan 08 13:28	18°♂08'03	0°-40'-22
asc. node	4797 Jan 12 02:12	26°♀59'58		minimum elong	4802 Jan 08 12:03	18°♂05'33	0°40'21
	4797 Jan 16 21:27	0°♂			4802 Jan 25 03:44	0°≈	
	4797 Mar 03 15:09	0°♂		morning rise	4802 Mar 02 03:27	26°≈30'00	
	4797 Apr 17 06:27	0°♂			4802 Mar 06 19:11	0°♂	
	4797 Jun 01 13:24	0°♂			4802 Apr 15 00:44	0°♀	
	4797 Jul 17 21:30	0°♂			4802 May 23 13:36	0°♂	
	4797 Sep 03 00:41	0°♂			4802 Jul 01 06:16	0°♂	
evening set	4797 Sep 08 14:21	3°♂31'44			4802 Aug 10 03:12	0°♂	

asc. node	4802 Sep 03 23:16	17°52'20"			4807 Nov 25 05:16	0°≈	
	4802 Sep 21 12:40	0°Ω			4808 Jan 04 22:49	0°✕	
	4802 Nov 08 03:33	0°⌚			4808 Feb 12 16:29	0°Υ	
retrograde	4803 Jan 28 22:46	29°⌚22'22"			4808 Mar 21 19:20	0°8	
min. Earth dist.	4803 Mar 06 19:38	20°⌚45'03"	0.64715 AU	asc. node	4808 Apr 25 20:55	27°8'18"	
greatest brilliancy	4803 Mar 09 11:03	19°⌚41'44"	-1.4m		4808 Apr 29 09:06	0°Π	
opposition	4803 Mar 10 04:44	19°⌚24'05"	4°35'44"	evening set	4808 May 17 18:02	13°Π58'33"	
direct	4803 Apr 18 09:11	10°⌚10'08"			4808 Jun 08 06:04	0°☾	
	4803 Jun 26 05:25	0°♄					
	4803 Aug 21 22:51	0°♋		conjunction	4808 Jul 18 04:14	28°☾43'17"	0°48'47"
desc. node	4803 Sep 11 09:05	12°♋03'35"		minimum elong	4808 Jul 18 02:08	28°☾39'35"	0°48'45"
	4803 Oct 10 07:48	0°♊			4808 Jul 19 23:57	0°Ω	
	4803 Nov 24 17:35	0°♐		max. Earth dist.	4808 Aug 20 23:10	22°Ω00'37"	2.55071 AU
evening set	4804 Jan 05 11:08	29°♐29'48"			4808 Sep 01 20:26	0°⌚	
	4804 Jan 06 03:44	0°≈		morning rise	4808 Sep 10 12:06	5°⌚45'11"	
max. Earth dist.	4804 Jan 21 23:58	11°≈39'56"	2.41874 AU		4808 Oct 17 19:03	0°♄	
	4804 Feb 15 07:38	0°✕			4808 Dec 04 19:38	0°♋	
					4809 Jan 24 17:31	0°♊	
conjunction	4804 Mar 02 20:56	12°✕44'03"	-1°-5'-8"		4809 Mar 24 15:44	0°♐	
minimum elong	4804 Mar 02 21:13	12°✕44'35"	1°05'09"	desc. node	4809 May 03 05:04	12°♐49'12"	
	4804 Mar 25 00:07	0°Υ		retrograde	4809 May 20 04:31	14°♐27'24"	
	4804 May 02 01:42	0°8		opposition	4809 Jun 25 14:10	6°♐42'35"	-2°-13'-38"
morning rise	4804 May 09 17:54	6°8'02'50"		greatest brilliancy	4809 Jun 26 11:16	6°♐23'16"	-1.8m
	4804 Jun 09 09:27	0°Π		min. Earth dist.	4809 Jul 03 06:51	3°♐54'05"	0.54986 AU
	4804 Jul 18 20:23	0°☾			4809 Jul 15 13:51	30°♋♊	
asc. node	4804 Jul 21 22:45	2°☾18'06"		direct	4809 Aug 04 10:38	27°♊20'04"	
	4804 Aug 29 06:57	0°Ω			4809 Aug 25 01:36	0°♐	
	4804 Oct 12 16:11	0°⌚			4809 Oct 27 18:33	0°≈	
	4804 Dec 01 00:17	0°♄			4809 Dec 10 22:19	0°✕	
	4805 Feb 07 02:32	0°♋			4810 Jan 20 02:03	0°Υ	
retrograde	4805 Mar 03 08:09	3°♋18'01"			4810 Feb 28 02:57	0°8	
	4805 Mar 25 20:53	30°♋♄		asc. node	4810 Mar 13 20:02	10°8'30'59"	
opposition	4805 Apr 12 13:21	23°♄38'30"	3°20'43"		4810 Apr 08 12:29	0°Π	
greatest brilliancy	4805 Apr 12 15:02	23°♄36'50"	-1.2m		4810 May 19 05:04	0°☾	
min. Earth dist.	4805 Apr 13 01:15	23°♄26'41"	0.67963 AU		4810 Jun 30 17:20	0°Ω	
direct	4805 May 23 15:16	13°♄46'45"		evening set	4810 Jul 13 14:41	8°Ω50'10"	
	4805 Jul 23 02:35	0°♋			4810 Aug 14 03:28	0°⌚	
desc. node	4805 Jul 29 07:22	2°♋51'17"					
	4805 Sep 17 12:39	0°♊		conjunction	4810 Sep 02 21:54	12°⌚59'21"	1°07'56"
	4805 Nov 03 17:29	0°♐		minimum elong	4810 Sep 02 21:54	12°⌚59'21"	1°07'56"
	4805 Dec 16 13:42	0°≈		max. Earth dist.	4810 Sep 17 19:00	22°⌚39'02"	2.64118 AU
	4806 Jan 25 16:02	0°✕			4810 Sep 29 04:48	0°♄	
	4806 Mar 05 03:55	0°Υ		morning rise	4810 Oct 19 23:14	13°♄16'17"	
evening set	4806 Mar 07 04:25	1°Υ35'40"			4810 Nov 15 09:39	0°♋	
	4806 Apr 12 02:04	0°8			4811 Jan 02 09:52	0°♊	
					4811 Feb 20 11:05	0°♐	
conjunction	4806 May 15 09:07	26°8'07'15"	0°-16'-49"	desc. node	4811 Mar 21 04:07	16°♐59'01"	
minimum elong	4806 May 15 10:48	26°8'10'31"	0°16'50"		4811 Apr 13 03:07	0°≈	
	4806 May 20 09:12	0°Π			4811 Jun 16 06:13	0°✕	
asc. node	4806 Jun 08 22:25	14°Π59'44"		retrograde	4811 Jul 20 08:02	6°✕13'25"	
	4806 Jun 28 21:20	0°☾		opposition	4811 Aug 21 02:26	0°✕30'37"	-6°-10'-8"
max. Earth dist.	4806 Jul 06 20:46	5°☾54'06"	2.41748 AU		4811 Aug 22 18:38	30°♋≈	
morning rise	4806 Jul 22 04:08	17°☾04'13"		greatest brilliancy	4811 Aug 23 05:00	29°≈52'05"	-2.5m
	4806 Aug 09 06:34	0°Ω		min. Earth dist.	4811 Aug 28 11:00	28°≈17'03"	0.41780 AU
	4806 Sep 22 00:15	0°⌚		direct	4811 Sep 24 06:41	23°≈44'44"	
	4806 Nov 07 14:21	0°♄			4811 Oct 25 10:31	0°✕	
	4806 Dec 28 10:34	0°♋			4811 Dec 19 19:25	0°Υ	
	4807 Mar 03 02:23	0°♊		asc. node	4812 Jan 29 19:26	28°Υ03'34"	
retrograde	4807 Apr 08 03:50	6°♊37'11"			4812 Feb 01 13:22	0°8	
	4807 May 11 00:59	30°♋♋			4812 Mar 14 18:22	0°Π	
opposition	4807 May 17 04:11	27°♋39'48"	1°06'10"		4812 Apr 26 12:38	0°☾	
greatest brilliancy	4807 May 17 10:22	27°♋33'48"	-1.4m		4812 Jun 09 15:17	0°Ω	
min. Earth dist.	4807 May 21 11:11	25°♋59'46"	0.64604 AU		4812 Jul 25 05:11	0°⌚	
desc. node	4807 Jun 16 06:19	18°♋28'14"		evening set	4812 Aug 24 17:19	19°⌚39'14"	
direct	4807 Jun 27 16:09	17°♋37'53"			4812 Sep 09 22:01	0°♄	
	4807 Aug 16 16:36	0°♊					
	4807 Oct 11 08:36	0°♐		conjunction	4812 Oct 10 03:35	19°♄13'58"	0°54'19"

minimum elong	4812 Oct 10 04:38	19° Ω 15'37	0°54'18			4817 Nov 22 06:25	0° \cap	
max. Earth dist.	4812 Oct 10 06:51	19° Ω 19'08	2.67796 AU	retrograde		4818 Jan 14 22:41	15° \cap 07'40	
	4812 Oct 27 02:11	0° \cap		min. Earth dist.		4818 Feb 18 22:49	7° \cap 07'48	0.61646 AU
morning rise	4812 Nov 23 08:57	17° \cap 22'51		opposition		4818 Feb 23 20:12	5° \cap 11'19	4°44'46
	4812 Dec 13 02:01	0° \nearrow		greatest brilliancy		4818 Feb 22 17:42	5° \cap 37'38	-1.5m
	4813 Jan 28 12:02	0° $\overline{\cap}$				4818 Mar 10 04:27	30° \cap	
desc. node	4813 Feb 05 03:25	4° $\overline{\cap}$ 58'56		direct		4818 Apr 02 21:50	26° \cap 20'21	
	4813 Mar 15 06:17	0° \approx				4818 Apr 28 19:49	0° \cap	
	4813 Apr 29 13:59	0° \nearrow				4818 Jul 08 04:34	0° Ω	
	4813 Jun 14 04:01	0° \cap				4818 Aug 30 07:01	0° \cap	
	4813 Aug 01 20:20	0° \cap		desc. node		4818 Sep 27 23:30	17° \cap 30'23	
retrograde	4813 Oct 08 01:41	23° \cap 26'28				4818 Oct 17 16:48	0° \nearrow	
min. Earth dist.	4813 Nov 03 22:05	19° \cap 01'31	0.37989 AU			4818 Dec 01 20:39	0° $\overline{\cap}$	
opposition	4813 Nov 08 15:55	17° \cap 41'09	-2°-40'-58	evening set		4818 Dec 17 11:13	10° $\overline{\cap}$ 49'34	
greatest brilliancy	4813 Nov 08 03:22	17° \cap 50'01	-2.9m	max. Earth dist.		4818 Dec 31 15:00	20° $\overline{\cap}$ 50'59	2.47106 AU
direct	4813 Dec 08 05:00	12° \cap 35'27				4819 Jan 13 07:41	0° \approx	
asc. node	4813 Dec 16 17:45	13° \cap 03'58						
	4814 Feb 04 16:46	0° \cap		conjunction		4819 Feb 08 09:57	19° \approx 15'42	-1°-1'-8
	4814 Mar 30 03:32	0° $\overline{\cap}$		minimum elong		4819 Feb 08 08:39	19° \approx 13'16	1°01'09
	4814 May 17 22:52	0° \cap				4819 Feb 22 15:29	0° \nearrow	
	4814 Jul 05 02:59	0° \cap				4819 Apr 02 12:21	0° \cap	
	4814 Aug 22 05:54	0° Ω		morning rise		4819 Apr 10 15:14	6° \cap 21'13	
evening set	4814 Oct 01 01:20	24° Ω 59'26				4819 May 10 17:29	0° \cap	
	4814 Oct 08 23:25	0° \cap		greatest brilliancy		4819 Jun 03 07:39	18° \cap 29'02	1.2m
max. Earth dist.	4814 Nov 02 05:11	15° \cap 27'11	2.65979 AU			4819 Jun 18 03:37	0° \cap	
						4819 Jul 27 16:23	0° $\overline{\cap}$	
conjunction	4814 Nov 15 01:54	23° \cap 44'14	0°20'48	asc. node		4819 Aug 08 15:48	8° $\overline{\cap}$ 49'16	
minimum elong	4814 Nov 15 02:32	23° \cap 45'14	0°20'49			4819 Sep 07 07:21	0° \cap	
	4814 Nov 24 17:37	0° \nearrow				4819 Oct 22 08:38	0° \cap	
desc. node	4814 Dec 24 01:52	19° \nearrow 17'39				4819 Dec 13 13:47	0° Ω	
morning rise	4814 Dec 29 15:28	23° \nearrow 00'06		retrograde		4820 Feb 19 01:14	20° Ω 37'19	
	4815 Jan 09 02:01	0° $\overline{\cap}$		min. Earth dist.		4820 Mar 29 09:58	11° Ω 11'43	0.67468 AU
	4815 Feb 21 20:27	0° \approx		opposition		4820 Mar 30 10:18	10° Ω 47'27	3°57'18
	4815 Apr 05 02:54	0° \nearrow		greatest brilliancy		4820 Mar 30 05:27	10° Ω 52'16	-1.2m
	4815 May 16 04:00	0° \cap		direct		4820 May 09 22:33	1° Ω 07'20	
	4815 Jun 25 14:18	0° \cap				4820 Aug 04 19:39	0° \cap	
	4815 Aug 05 14:09	0° \cap		desc. node		4820 Aug 14 22:00	5° \cap 22'45	
	4815 Sep 18 22:22	0° $\overline{\cap}$				4820 Sep 26 04:44	0° \nearrow	
asc. node	4815 Nov 03 17:12	23° $\overline{\cap}$ 47'49				4820 Nov 11 11:21	0° $\overline{\cap}$	
	4815 Nov 28 14:19	0° \cap				4820 Dec 24 01:47	0° \approx	
retrograde	4815 Dec 05 15:25	0° \cap 21'42				4821 Feb 02 03:48	0° \nearrow	
	4815 Dec 12 14:26	30° \cap		evening set		4821 Feb 08 16:32	5° \nearrow 01'18	
min. Earth dist.	4816 Jan 04 02:15	24° $\overline{\cap}$ 22'11	0.49946 AU			4821 Mar 12 16:35	0° \cap	
greatest brilliancy	4816 Jan 10 15:57	21° $\overline{\cap}$ 56'37	-2.1m					
opposition	4816 Jan 12 04:14	21° $\overline{\cap}$ 22'58	3°30'12	conjunction		4821 Apr 15 13:02	26° \cap 46'05	0°-45'-9
direct	4816 Feb 15 06:30	14° $\overline{\cap}$ 02'50		minimum elong		4821 Apr 15 16:28	26° \cap 52'53	0°45'08
	4816 Apr 13 14:59	0° \cap				4821 Apr 19 15:08	0° \cap	
	4816 Jun 10 14:10	0° \cap		max. Earth dist.		4821 May 14 08:05	19° \cap 26'32	2.37135 AU
	4816 Aug 01 04:54	0° Ω				4821 May 27 21:33	0° \cap	
	4816 Sep 19 09:15	0° \cap		asc. node		4821 Jun 25 14:06	21° \cap 56'39	
evening set	4816 Nov 05 21:54	0° \nearrow 15'52		morning rise		4821 Jun 26 05:08	22° \cap 24'59	
	4816 Nov 05 12:10	0° \nearrow				4821 Jul 06 08:01	0° $\overline{\cap}$	
desc. node	4816 Nov 10 00:41	2° \nearrow 57'04				4821 Aug 16 15:56	0° \cap	
max. Earth dist.	4816 Nov 26 15:04	13° \nearrow 54'32	2.58846 AU			4821 Sep 29 12:09	0° \cap	
	4816 Dec 20 11:27	0° $\overline{\cap}$				4821 Nov 15 17:14	0° Ω	
						4822 Jan 08 04:25	0° \cap	
conjunction	4816 Dec 22 13:59	1° $\overline{\cap}$ 26'28	0°-23'-20	retrograde		4822 Mar 24 18:14	23° \cap 38'22	
minimum elong	4816 Dec 22 13:09	1° $\overline{\cap}$ 25'02	0°23'19	opposition		4822 May 03 09:28	14° \cap 21'48	2°05'10
	4817 Feb 01 07:39	0° \approx		greatest brilliancy		4822 May 03 16:36	14° \cap 14'48	-1.3m
morning rise	4817 Feb 09 13:05	5° \approx 55'19		min. Earth dist.		4822 May 06 05:14	13° \cap 15'16	0.66694 AU
	4817 Mar 14 07:14	0° \nearrow		direct		4822 Jun 13 22:13	4° \cap 20'10	
	4817 Apr 22 21:19	0° \cap		desc. node		4822 Jul 02 20:42	6° \cap 22'40	
	4817 May 31 17:55	0° \cap				4822 Aug 31 09:30	0° \nearrow	
	4817 Jul 09 17:49	0° \cap				4822 Oct 20 20:54	0° $\overline{\cap}$	
	4817 Aug 19 00:33	0° $\overline{\cap}$				4822 Dec 03 15:08	0° \approx	
asc. node	4817 Sep 20 17:21	22° $\overline{\cap}$ 54'39				4823 Jan 13 00:16	0° \nearrow	
	4817 Oct 01 10:00	0° \cap				4823 Feb 20 14:14	0° \cap	

	4823 Mar 30 13:56	0°♄			4828 Feb 06 06:53	0°♄		
evening set	4823 Apr 21 07:32	17°♄03'42		desc. node	4828 Feb 22 17:50	10°♄28'24		
	4823 May 07 23:47	0°♄			4828 Mar 24 12:25	0°♄		
asc. node	4823 May 13 14:00	4°♄18'03			4828 May 11 14:48	0°♄		
	4823 Jun 16 15:50	0°♄			4828 Jul 02 17:00	0°♄		
				retrograde	4828 Sep 07 03:26	21°♄21'31		
conjunction	4823 Jun 26 13:27	7°♄17'13	0°28'34	opposition	4828 Oct 07 02:09	16°♄24'35	-5°-38'00	
minimum elong	4823 Jun 26 11:27	7°♄13'34	0°28'31	greatest brilliancy	4828 Oct 07 11:59	16°♄18'04	-2.9m	
	4823 Jul 28 04:43	0°♄		min. Earth dist.	4828 Oct 07 21:45	16°♄11'35	0.37044 AU	
max. Earth dist.	4823 Aug 08 02:26	7°♄37'44	2.50200 AU	direct	4828 Nov 05 22:22	11°♄26'11		
morning rise	4823 Aug 24 13:17	18°♄57'01		asc. node	4829 Jan 02 11:02	29°♄14'48		
	4823 Sep 09 22:12	0°♄			4829 Jan 03 21:41	0°♄		
	4823 Oct 25 23:30	0°♄			4829 Feb 23 10:47	0°♄		
	4823 Dec 13 16:47	0°♄			4829 Apr 10 19:52	0°♄		
	4824 Feb 05 02:44	0°♄			4829 May 27 00:15	0°♄		
retrograde	4824 May 02 01:42	28°♄57'28			4829 Jul 12 20:45	0°♄		
desc. node	4824 May 19 20:25	26°♄58'07			4829 Aug 29 07:05	0°♄		
opposition	4824 Jun 08 16:50	20°♄39'25	0°-47'-33	evening set	4829 Sep 16 21:14	11°♄44'01		
greatest brilliancy	4824 Jun 08 23:18	20°♄33'19	-1.6m		4829 Oct 15 17:35	0°♄		
min. Earth dist.	4824 Jun 15 04:34	18°♄12'38	0.59421 AU	max. Earth dist.	4829 Oct 24 08:15	5°♄28'40	2.67336 AU	
direct	4824 Jul 19 12:41	10°♄52'23						
	4824 Sep 20 00:34	0°♄		conjunction	4829 Nov 01 02:32	10°♄25'51	0°35'32	
	4824 Nov 08 15:11	0°♄		minimum elong	4829 Nov 01 03:28	10°♄27'21	0°35'32	
	4824 Dec 20 17:50	0°♄			4829 Dec 01 12:32	0°♄		
	4825 Jan 29 02:16	0°♄		morning rise	4829 Dec 15 03:36	8°♄51'58		
	4825 Mar 08 15:05	0°♄		desc. node	4830 Jan 09 16:30	25°♄40'29		
asc. node	4825 Mar 30 12:41	16°♄57'00			4830 Jan 16 04:40	0°♄		
	4825 Apr 16 14:21	0°♄			4830 Mar 01 13:37	0°♄		
	4825 May 26 21:06	0°♄			4830 Apr 13 16:43	0°♄		
evening set	4825 Jun 23 15:32	19°♄55'56			4830 May 25 20:04	0°♄		
	4825 Jul 08 00:14	0°♄			4830 Jul 06 16:49	0°♄		
					4830 Aug 19 04:40	0°♄		
conjunction	4825 Aug 17 04:55	27°♄22'45	1°05'21		4830 Oct 11 23:24	0°♄		
minimum elong	4825 Aug 17 04:06	27°♄21'23	1°05'21	retrograde	4830 Nov 15 18:37	7°♄49'19		
	4825 Aug 21 03:16	0°♄		asc. node	4830 Nov 20 10:54	7°♄39'25		
max. Earth dist.	4825 Sep 07 22:11	11°♄44'45	2.61198 AU	min. Earth dist.	4830 Dec 13 03:18	2°♄41'13	0.44547 AU	
morning rise	4825 Oct 05 10:14	29°♄35'23		greatest brilliancy	4830 Dec 20 11:30	0°♄10'40	-2.4m	
	4825 Oct 06 01:34	0°♄			4830 Dec 20 23:53	30°♄♂♂		
	4825 Nov 22 10:51	0°♄		opposition	4830 Dec 21 09:33	29°♄51'42	1°51'41	
	4826 Jan 10 05:43	0°♄		direct	4831 Jan 22 14:54	23°♄23'36		
	4826 Mar 02 09:36	0°♄			4831 Feb 25 23:31	0°♄		
desc. node	4826 Apr 06 19:11	18°♄57'42			4831 Apr 30 02:30	0°♄		
	4826 Apr 30 11:10	0°♄			4831 Jun 21 03:30	0°♄		
retrograde	4826 Jun 23 08:26	13°♄32'18			4831 Aug 09 22:58	0°♄		
opposition	4826 Jul 27 02:11	6°♄56'40	-4°-45'-43		4831 Sep 27 10:12	0°♄		
greatest brilliancy	4826 Jul 29 01:20	6°♄17'11	-2.2m	evening set	4831 Oct 23 08:15	16°♄26'06		
min. Earth dist.	4826 Aug 04 15:18	4°♄05'40	0.46899 AU		4831 Nov 13 08:17	0°♄		
	4826 Aug 20 07:27	30°♄♂♂		max. Earth dist.	4831 Nov 17 03:02	2°♄28'07	2.62249 AU	
direct	4826 Sep 02 03:46	28°♄51'07		desc. node	4831 Nov 27 15:10	9°♄22'13		
	4826 Sep 15 02:07	0°♄						
	4826 Nov 20 05:14	0°♄		conjunction	4831 Dec 07 23:19	16°♄13'50	0°-5'-43	
	4827 Jan 02 23:51	0°♄		minimum elong	4831 Dec 07 23:07	16°♄13'31	0°05'43	
	4827 Feb 12 18:22	0°♄		behind sun begin	4831 Dec 07 04:52	15°♄43'06		
asc. node	4827 Feb 15 11:03	2°♄00'03		behind sun end	4831 Dec 08 17:23	16°♄43'56		
	4827 Mar 25 08:53	0°♄			4831 Dec 28 10:02	0°♄		
	4827 May 06 00:52	0°♄		morning rise	4832 Jan 23 13:37	18°♄01'38		
	4827 Jun 18 08:17	0°♄			4832 Feb 09 13:24	0°♄		
	4827 Aug 02 08:42	0°♄			4832 Mar 21 22:49	0°♄		
evening set	4827 Aug 10 00:23	5°♄00'10			4832 Apr 30 23:33	0°♄		
	4827 Sep 17 17:39	0°♄			4832 Jun 09 06:27	0°♄		
					4832 Jul 18 17:37	0°♄		
conjunction	4827 Sep 26 20:19	5°♄49'35	1°02'30		4832 Aug 28 18:37	0°♄		
minimum elong	4827 Sep 26 21:09	5°♄50'55	1°02'29	asc. node	4832 Oct 07 09:13	26°♄23'49		
max. Earth dist.	4827 Oct 02 07:48	9°♄19'21	2.67016 AU		4832 Oct 13 07:03	0°♄		
	4827 Nov 03 20:17	0°♄		retrograde	4832 Dec 31 00:27	29°♄30'28		
morning rise	4827 Nov 10 18:30	4°♄23'38		min. Earth dist.	4833 Feb 01 23:06	22°♄13'31	0.57668 AU	
	4827 Dec 21 02:51	0°♄		greatest brilliancy	4833 Feb 06 21:02	20°♄18'20	-1.7m	

opposition	4833 Feb 08 07:06	19°044'58	4°36'55			4838 May 15 12:34	0°II	
direct	4833 Mar 17 00:25	11°023'05		asc. node		4838 May 30 05:26	11°II17'52	
	4833 May 21 10:09	0°♊						
	4833 Jul 18 01:04	0°♊		conjunction		4838 May 31 13:45	12°II19'29	0°00'57
	4833 Sep 07 02:15	0°♊		minimum elong		4838 May 31 13:39	12°II19'18	0°00'56
desc. node	4833 Oct 14 14:00	23°♊23'23		behind sun begin		4838 May 30 09:09	11°II24'59	
	4833 Oct 24 20:41	0°♊		behind sun end		4838 Jun 01 18:09	13°II13'33	
evening set	4833 Nov 30 07:32	24°♊08'51				4838 Jun 24 01:16	0°♊	
	4833 Dec 08 21:32	0°♊		max. Earth dist.		4838 Jul 21 02:25	19°♊46'35	2.44828 AU
max. Earth dist.	4833 Dec 15 23:30	4°♊52'44	2.52150 AU	morning rise		4838 Aug 04 04:27	29°♊49'02	
						4838 Aug 04 10:40	0°♊	
conjunction	4834 Jan 19 00:58	28°♊57'48	0°-49'-16			4838 Sep 17 02:57	0°♊	
minimum elong	4834 Jan 18 23:22	28°♊54'56	0°49'15			4838 Nov 02 10:03	0°♊	
	4834 Jan 20 11:23	0°♊				4838 Dec 22 05:38	0°♊	
	4834 Mar 02 00:32	0°♊				4839 Feb 18 11:56	0°♊	
morning rise	4834 Mar 15 05:45	10°♊02'34		retrograde		4839 Apr 16 19:11	14°♊47'05	
	4834 Apr 10 03:08	0°♊		opposition		4839 May 25 09:44	6°♊02'12	0°27'18
	4834 May 18 12:54	0°♊		greatest brilliancy		4839 May 25 12:55	5°♊59'07	-1.4m
	4834 Jun 26 02:27	0°II		min. Earth dist.		4839 May 30 12:10	4°♊04'22	0.63040 AU
	4834 Aug 04 18:54	0°♊		desc. node		4839 Jun 06 10:43	1°♊31'26	
asc. node	4834 Aug 25 08:26	14°♊57'54				4839 Jun 11 01:46	30°♊	
	4834 Sep 15 18:22	0°♊		direct		4839 Jul 05 18:46	26°♊03'03	
	4834 Nov 01 01:12	0°♊				4839 Aug 01 02:55	0°♊	
	4834 Dec 30 12:49	0°♊				4839 Oct 04 11:20	0°♊	
retrograde	4835 Feb 05 17:22	7°♊34'59				4839 Nov 19 12:16	0°♊	
	4835 Mar 12 03:20	30°♊				4839 Dec 30 15:21	0°♊	
min. Earth dist.	4835 Mar 15 13:08	28°♊39'09	0.65973 AU			4840 Feb 07 13:15	0°♊	
opposition	4835 Mar 18 01:57	27°♊38'24	4°24'47			4840 Mar 16 18:31	0°♊	
greatest brilliancy	4835 Mar 17 13:08	27°♊51'13	-1.3m	asc. node		4840 Apr 16 05:26	23°♊41'50	
direct	4835 Apr 26 19:25	18°♊13'49				4840 Apr 24 10:24	0°II	
	4835 Jun 16 03:07	0°♊		evening set		4840 May 31 23:13	28°II12'48	
	4835 Aug 15 22:48	0°♊				4840 Jun 03 09:29	0°♊	
desc. node	4835 Sep 01 13:05	9°♊31'05				4840 Jul 15 05:12	0°♊	
	4835 Oct 05 05:03	0°♊						
	4835 Nov 19 21:52	0°♊		conjunction		4840 Jul 29 17:52	10°♊05'09	0°56'52
	4836 Jan 01 09:41	0°♊		minimum elong		4840 Jul 29 16:09	10°♊02'12	0°56'51
evening set	4836 Jan 17 09:24	11°♊46'14		max. Earth dist.		4840 Aug 28 00:10	29°♊55'39	2.57470 AU
max. Earth dist.	4836 Feb 10 02:21	29°♊39'14	2.39164 AU			4840 Aug 28 02:47	0°♊	
	4836 Feb 10 13:13	0°♊		morning rise		4840 Sep 19 23:17	15°♊05'49	
						4840 Oct 12 23:55	0°♊	
conjunction	4836 Mar 17 18:40	28°♊06'19	-1°-2'-3			4840 Nov 29 17:01	0°♊	
minimum elong	4836 Mar 17 20:23	28°♊09'41	1°02'03			4841 Jan 18 15:23	0°♊	
	4836 Mar 20 04:34	0°♊				4841 Mar 14 12:09	0°♊	
	4836 Apr 27 04:57	0°♊		desc. node		4841 Apr 23 09:33	17°♊13'05	
morning rise	4836 May 27 09:10	23°♊41'44		retrograde		4841 May 31 14:12	24°♊34'47	
	4836 Jun 04 11:53	0°II		opposition		4841 Jul 06 04:09	17°♊12'11	-3°-7'-44
asc. node	4836 Jul 12 07:23	28°II48'12		greatest brilliancy		4841 Jul 07 11:12	16°♊44'28	-1.9m
	4836 Jul 13 21:52	0°♊		min. Earth dist.		4841 Jul 14 09:14	14°♊16'53	0.52226 AU
	4836 Aug 24 05:59	0°♊		direct		4841 Aug 14 05:59	8°♊10'50	
	4836 Oct 07 07:57	0°♊				4841 Oct 18 07:24	0°♊	
	4836 Nov 24 14:19	0°♊				4841 Dec 04 00:09	0°♊	
	4837 Jan 22 16:00	0°♊				4842 Jan 14 00:00	0°♊	
retrograde	4837 Mar 10 23:52	10°♊58'10				4842 Feb 22 11:27	0°♊	
opposition	4837 Apr 20 01:48	1°♊25'53	2°55'19	asc. node		4842 Mar 04 05:09	7°♊24'31	
greatest brilliancy	4837 Apr 20 06:12	1°♊21'33	-1.2m			4842 Apr 03 04:31	0°II	
min. Earth dist.	4837 Apr 21 09:50	0°♊54'11	0.67797 AU			4842 May 14 03:15	0°♊	
	4837 Apr 23 16:51	30°♊				4842 Jun 25 20:20	0°♊	
direct	4837 May 31 09:38	21°♊29'21		evening set		4842 Jul 24 00:25	19°♊05'52	
	4837 Jul 11 19:15	0°♊				4842 Aug 09 10:03	0°♊	
desc. node	4837 Jul 19 11:59	2°♊57'41						
	4837 Sep 11 07:51	0°♊		conjunction		4842 Sep 11 21:21	21°♊51'14	1°07'08
	4837 Oct 29 10:57	0°♊		minimum elong		4842 Sep 11 21:44	21°♊51'51	1°07'08
	4837 Dec 11 14:06	0°♊		max. Earth dist.		4842 Sep 23 08:10	29°♊13'54	2.65370 AU
	4838 Jan 20 18:40	0°♊				4842 Sep 24 12:53	0°♊	
	4838 Feb 28 07:00	0°♊		morning rise		4842 Oct 28 00:51	21°♊22'08	
evening set	4838 Mar 23 07:52	18°♊13'04				4842 Nov 10 15:56	0°♊	
	4838 Apr 07 05:08	0°♊				4842 Dec 28 08:30	0°♊	

	4843 Feb 14 13:56	0°☾	opposition	4848 Jan 23 00:26	2°♊35'24	4°04'38
desc. node	4843 Mar 11 08:12	15°☾09'08		4848 Jan 30 02:52	30°♊☾	
	4843 Apr 05 03:14	0°≈	direct	4848 Feb 27 03:11	24°☾50'49	
	4843 May 29 07:18	0°♋		4848 Mar 28 18:12	0°♊	
retrograde	4843 Aug 06 10:56	21°♋28'53		4848 Jun 03 14:07	0°♎	
opposition	4843 Sep 06 05:53	16°♋13'13 -6°-32'-22		4848 Jul 26 18:10	0°♎	
greatest brilliancy	4843 Sep 08 00:04	15°♋43'14 -2.7m		4848 Sep 14 12:19	0°♎	
min. Earth dist.	4843 Sep 12 00:03	14°♋35'39 0.39421 AU	desc. node	4848 Oct 31 05:10	29°♎34'53	
direct	4843 Oct 08 12:43	10°♋15'44		4848 Oct 31 20:38	0°♋	
	4843 Dec 07 08:36	0°♎	evening set	4848 Nov 14 11:50	8°♋55'35	
asc. node	4844 Jan 20 03:12	27°♎13'21	max. Earth dist.	4848 Dec 03 02:54	21°♋20'55 2.56636 AU	
	4844 Jan 24 06:49	0°♋		4848 Dec 15 20:39	0°☾	
	4844 Mar 08 01:25	0°♊				
	4844 Apr 20 17:01	0°☾	conjunction	4849 Jan 01 00:52	11°☾10'29 0°-33'-21	
	4844 Jun 04 09:01	0°♊	minimum elong	4848 Dec 31 23:41	11°☾08'26 0°33'20	
	4844 Jul 20 07:39	0°♎		4849 Jan 27 14:46	0°≈	
evening set	4844 Sep 02 07:48	28°♎09'19	morning rise	4849 Feb 20 20:10	17°≈39'04	
	4844 Sep 05 05:27	0°♎		4849 Mar 09 10:30	0°♋	
max. Earth dist.	4844 Oct 15 11:21	25°♎33'16 2.67859 AU		4849 Apr 17 20:14	0°♎	
				4849 May 26 12:20	0°♋	
conjunction	4844 Oct 18 04:45	27°♎17'12 0°48'07		4849 Jul 04 07:30	0°♊	
minimum elong	4844 Oct 18 05:49	27°♎18'54 0°48'07		4849 Aug 13 07:10	0°☾	
	4844 Oct 22 11:10	0°♎	asc. node	4849 Sep 11 00:24	20°☾29'16	
morning rise	4844 Dec 01 05:39	25°♎24'34		4849 Sep 24 23:07	0°♊	
	4844 Dec 08 08:52	0°♋		4849 Nov 12 17:52	0°♎	
	4845 Jan 23 11:44	0°☾	retrograde	4850 Jan 23 01:18	23°♎52'03	
desc. node	4845 Jan 26 06:44	1°☾50'06	min. Earth dist.	4850 Feb 28 03:05	15°♎30'44 0.63472 AU	
	4845 Mar 09 16:29	0°≈	greatest brilliancy	4850 Mar 03 06:43	14°♎15'25 -1.4m	
	4845 Apr 23 01:28	0°♋	opposition	4850 Mar 04 04:17	13°♎53'56 4°41'25	
	4845 Jun 06 00:04	0°♎	direct	4850 Apr 11 21:40	4°♎49'28	
	4845 Jul 20 20:33	0°♋		4850 Jun 30 18:23	0°♎	
	4845 Sep 11 02:36	0°♊		4850 Aug 24 19:17	0°♎	
retrograde	4845 Oct 23 09:51	10°♊56'20	desc. node	4850 Sep 18 03:48	14°♎35'18	
min. Earth dist.	4845 Nov 18 15:41	6°♊26'42 0.39805 AU		4850 Oct 12 19:15	0°♋	
opposition	4845 Nov 25 09:45	4°♊24'09 0°-48'-9		4850 Nov 27 03:52	0°☾	
greatest brilliancy	4845 Nov 25 03:06	4°♊29'13 -2.8m	evening set	4850 Dec 27 22:40	21°☾33'12	
asc. node	4845 Dec 07 02:33	1°♊09'12		4851 Jan 08 15:42	0°≈	
	4845 Dec 12 18:52	30°♊♋	max. Earth dist.	4851 Jan 11 11:31	2°≈03'29 2.44212 AU	
direct	4845 Dec 25 18:49	28°♋53'02		4851 Feb 17 22:14	0°♋	
	4846 Jan 07 23:25	0°♊				
	4846 Mar 21 03:32	0°☾	conjunction	4851 Feb 21 04:59	2°♋30'07 -1°-4'-42	
	4846 May 11 12:30	0°♊	minimum elong	4851 Feb 21 04:25	2°♋29'01 1°04'43	
	4846 Jun 29 17:33	0°♎		4851 Mar 28 17:10	0°♎	
	4846 Aug 17 08:29	0°♎	greatest brilliancy	4851 Apr 06 16:44	7°♎02'49 1.2m	
	4846 Oct 04 07:30	0°♎	morning rise	4851 Apr 27 05:24	23°♎12'38	
evening set	4846 Oct 09 03:24	3°♎03'19		4851 May 05 20:08	0°♋	
max. Earth dist.	4846 Nov 07 13:54	21°♎52'12 2.64859 AU		4851 Jun 13 04:14	0°♊	
	4846 Nov 20 02:58	0°♋		4851 Jul 22 14:47	0°☾	
			asc. node	4851 Jul 29 23:17	5°☾27'08	
conjunction	4846 Nov 23 06:08	2°♋02'32 0°11'25		4851 Sep 02 01:13	0°♊	
minimum elong	4846 Nov 23 06:30	2°♋03'07 0°11'24		4851 Oct 16 14:14	0°♎	
behind sun begin	4846 Nov 22 17:02	1°♋41'09		4851 Dec 05 18:00	0°♎	
behind sun end	4846 Nov 23 19:58	2°♋25'05	retrograde	4852 Feb 26 15:47	28°♎23'53	
desc. node	4846 Dec 14 05:55	15°♋51'16	opposition	4852 Apr 06 23:46	18°♎39'21 3°36'56	
	4847 Jan 04 08:52	0°☾	greatest brilliancy	4852 Apr 06 22:48	18°♎40'19 -1.2m	
morning rise	4847 Jan 07 08:48	2°☾01'41	min. Earth dist.	4852 Apr 06 19:45	18°♎43'21 0.67878 AU	
	4847 Feb 16 21:45	0°≈	direct	4852 May 17 20:38	8°♎52'12	
	4847 Mar 30 20:07	0°♋		4852 Jul 28 01:03	0°♎	
	4847 May 10 11:37	0°♎	desc. node	4852 Aug 05 02:17	3°♎59'13	
	4847 Jun 19 10:05	0°♋		4852 Sep 20 14:01	0°♋	
	4847 Jul 29 16:30	0°♊		4852 Nov 06 10:29	0°☾	
	4847 Sep 10 06:15	0°☾		4852 Dec 19 05:32	0°≈	
asc. node	4847 Oct 25 02:42	26°☾47'03		4853 Jan 28 08:43	0°♋	
	4847 Oct 31 17:53	0°♊	evening set	4853 Feb 23 04:53	20°♋01'40	
retrograde	4847 Dec 15 17:21	11°♊56'00		4853 Mar 07 21:35	0°♎	
min. Earth dist.	4848 Jan 15 10:07	5°♊28'11 0.52854 AU		4853 Apr 14 19:47	0°♋	
greatest brilliancy	4848 Jan 21 10:33	3°♊11'24 -1.9m				

conjunction	4853 May 02 08:58	13°♄50'06	0°-29'-58	desc. node	4858 Mar 27 22:47	18°♄25'16	
minimum elong	4853 May 02 11:49	13°♄55'42	0°29'57		4858 Apr 18 15:05	0°♄	
	4853 May 23 01:57	0°♄		retrograde	4858 Jul 07 23:41	26°♄17'48	
asc. node	4853 Jun 15 23:31	18°♄19'36		opposition	4858 Aug 09 15:07	20°♄11'02	-5°-37'-33
max. Earth dist.	4853 Jun 21 02:24	22°♄11'51	2.39399 AU	greatest brilliancy	4858 Aug 11 18:39	19°♄29'49	-2.4m
	4853 Jul 01 12:15	0°♄		min. Earth dist.	4858 Aug 17 17:44	17°♄36'28	0.43996 AU
morning rise	4853 Jul 11 08:34	7°♄17'45		direct	4858 Sep 14 04:24	12°♄46'56	
	4853 Aug 11 19:13	0°♄			4858 Nov 08 04:09	0°♄	
	4853 Sep 24 12:03	0°♄			4858 Dec 25 23:24	0°♄	
	4853 Nov 10 05:35	0°♄		asc. node	4859 Feb 05 20:27	29°♄49'13	
	4853 Dec 31 20:51	0°♄			4859 Feb 06 02:24	0°♄	
	4854 Mar 16 16:56	0°♄			4859 Mar 19 10:42	0°♄	
retrograde	4854 Apr 01 21:00	1°♄29'48			4859 Apr 30 14:57	0°♄	
	4854 Apr 17 05:28	30°♄			4859 Jun 13 07:00	0°♄	
opposition	4854 May 11 05:19	22°♄23'21	1°31'45		4859 Jul 28 13:34	0°♄	
greatest brilliancy	4854 May 11 12:21	22°♄16'29	-1.3m	evening set	4859 Aug 19 02:27	13°♄58'03	
min. Earth dist.	4854 May 14 20:59	20°♄57'49	0.65667 AU		4859 Sep 13 01:56	0°♄	
direct	4854 Jun 21 19:12	12°♄20'47					
desc. node	4854 Jun 23 01:18	12°♄21'22		conjunction	4859 Oct 05 01:57	14°♄01'32	0°58'06
	4854 Aug 22 19:05	0°♄		minimum elong	4859 Oct 05 02:56	14°♄03'07	0°58'06
	4854 Oct 14 21:20	0°♄		max. Earth dist.	4859 Oct 07 12:48	15°♄35'08	2.67551 AU
	4854 Nov 28 07:12	0°♄			4859 Oct 30 05:05	0°♄	
	4855 Jan 07 21:49	0°♄		morning rise	4859 Nov 18 13:32	12°♄18'09	
	4855 Feb 15 14:15	0°♄			4859 Dec 16 07:48	0°♄	
	4855 Mar 25 15:25	0°♄			4860 Feb 01 01:17	0°♄	
asc. node	4855 May 03 22:18	0°♄37'40		desc. node	4860 Feb 12 22:20	7°♄40'04	
	4855 May 03 02:42	0°♄			4860 Mar 18 09:42	0°♄	
evening set	4855 May 07 02:13	3°♄03'24			4860 May 03 17:47	0°♄	
	4855 Jun 11 20:26	0°♄			4860 Jun 20 06:56	0°♄	
					4860 Aug 14 17:50	0°♄	
conjunction	4855 Jul 09 17:54	20°♄17'01	0°41'07	retrograde	4860 Sep 25 00:48	9°♄56'36	
minimum elong	4855 Jul 09 15:41	20°♄13'02	0°41'05	min. Earth dist.	4860 Oct 23 04:42	5°♄21'14	0.37148 AU
	4855 Jul 23 10:37	0°♄		opposition	4860 Oct 25 16:16	4°♄40'56	-4°-6'-50
max. Earth dist.	4855 Aug 16 07:01	16°♄32'45	2.52971 AU	greatest brilliancy	4860 Oct 25 09:06	4°♄45'47	-2.9m
morning rise	4855 Sep 04 00:24	29°♄13'21			4860 Nov 18 06:24	30°♄	
	4855 Sep 05 04:17	0°♄		direct	4860 Nov 24 00:44	29°♄46'31	
	4855 Oct 21 02:18	0°♄			4860 Nov 29 19:46	0°♄	
	4855 Dec 08 07:55	0°♄		asc. node	4860 Dec 23 19:02	5°♄09'21	
	4856 Jan 29 01:37	0°♄			4861 Feb 13 09:53	0°♄	
	4856 Apr 01 17:37	0°♄			4861 Apr 03 18:35	0°♄	
desc. node	4856 May 10 00:07	8°♄02'05			4861 May 21 05:18	0°♄	
retrograde	4856 May 12 01:37	8°♄03'38			4861 Jul 07 17:37	0°♄	
opposition	4856 Jun 18 01:45	0°♄03'03	-1°-35'-53	evening set	4861 Aug 24 12:20	0°♄	
	4856 Jun 18 05:03	30°♄			4861 Sep 25 00:15	19°♄48'45	
greatest brilliancy	4856 Jun 18 16:04	29°♄49'46	-1.7m		4861 Oct 11 02:44	0°♄	
min. Earth dist.	4856 Jun 25 06:39	27°♄22'45	0.57077 AU	max. Earth dist.	4861 Oct 29 12:59	11°♄43'54	2.66695 AU
direct	4856 Jul 28 10:54	20°♄27'32					
	4856 Sep 07 19:59	0°♄		conjunction	4861 Nov 09 01:21	18°♄28'18	0°27'11
	4856 Nov 01 14:17	0°♄		minimum elong	4861 Nov 09 02:08	18°♄29'34	0°27'10
	4856 Dec 14 18:00	0°♄			4861 Nov 26 21:47	0°♄	
	4857 Jan 23 12:42	0°♄		morning rise	4861 Dec 23 07:47	17°♄17'46	
	4857 Mar 03 07:23	0°♄		desc. node	4861 Dec 30 21:02	22°♄17'52	
asc. node	4857 Mar 20 20:55	13°♄32'28			4862 Jan 11 10:11	0°♄	
	4857 Apr 11 11:07	0°♄			4862 Feb 24 11:37	0°♄	
	4857 May 21 22:00	0°♄			4862 Apr 08 03:08	0°♄	
	4857 Jul 03 04:38	0°♄			4862 May 19 15:09	0°♄	
evening set	4857 Jul 05 06:37	1°♄26'32			4862 Jun 29 14:01	0°♄	
	4857 Aug 16 10:21	0°♄			4862 Aug 10 08:54	0°♄	
					4862 Sep 25 20:47	0°♄	
conjunction	4857 Aug 26 22:00	6°♄56'11	1°07'29	asc. node	4862 Nov 10 18:04	19°♄35'37	
minimum elong	4857 Aug 26 21:40	6°♄55'39	1°07'29	retrograde	4862 Nov 27 09:40	21°♄33'01	
max. Earth dist.	4857 Sep 13 19:36	18°♄38'47	2.62917 AU	min. Earth dist.	4862 Dec 25 20:45	15°♄57'29	0.47525 AU
	4857 Oct 01 09:08	0°♄		greatest brilliancy	4863 Jan 01 20:16	13°♄27'24	-2.2m
morning rise	4857 Oct 13 20:24	7°♄59'12		opposition	4863 Jan 03 04:50	12°♄58'05	2°55'23
	4857 Nov 17 14:58	0°♄		direct	4863 Feb 05 11:10	6°♄00'08	
	4858 Jan 04 21:57	0°♄			4863 Apr 21 03:36	0°♄	
	4858 Feb 23 17:19	0°♄			4863 Jun 15 00:13	0°♄	

	4863 Aug 04 18:35	0°♄		conjunction	4868 Apr 02 14:56	14°♃22'43	0°-54'-16
	4863 Sep 22 15:39	0°♍		minimum elong	4868 Apr 02 17:56	14°♃28'38	0°54'15
evening set	4863 Oct 31 14:27	24°♍44'06			4868 Apr 22 08:58	0°♄	
	4863 Nov 08 17:21	0°♅			4868 May 30 14:56	0°♂	
desc. node	4863 Nov 17 19:40	5°♅56'53		morning rise	4868 Jun 13 13:14	10°♂44'25	
max. Earth dist.	4863 Nov 23 01:02	9°♅23'15	2.60471 AU	asc. node	4868 Jul 02 15:11	25°♂13'40	
					4868 Jul 09 00:10	0°♄	
conjunction	4863 Dec 16 17:17	25°♅12'24	0°-15'-54		4868 Aug 19 06:38	0°♄	
minimum elong	4863 Dec 16 16:43	25°♅11'27	0°15'55		4868 Oct 02 03:08	0°♁	
behind sun begin	4863 Dec 16 13:31	25°♅06'02			4868 Nov 18 15:02	0°♄	
behind sun end	4863 Dec 16 19:56	25°♅16'53			4869 Jan 12 15:56	0°♍	
	4863 Dec 23 18:43	0°♄		retrograde	4869 Mar 18 19:27	18°♍41'06	
morning rise	4864 Feb 02 11:54	28°♄21'27		opposition	4869 Apr 27 16:26	9°♍17'12	2°26'56
	4864 Feb 04 19:13	0°♁		greatest brilliancy	4869 Apr 27 22:41	9°♍11'03	-1.2m
	4864 Mar 16 23:52	0°♂		min. Earth dist.	4869 Apr 29 20:37	8°♍25'48	0.67311 AU
	4864 Apr 25 19:08	0°♃			4869 May 28 12:52	30°♄	
	4864 Jun 03 20:05	0°♄		direct	4869 Jun 08 04:02	29°♄17'15	
	4864 Jul 12 23:48	0°♂			4869 Jun 19 03:50	0°♍	
	4864 Aug 22 11:59	0°♄		desc. node	4869 Jul 09 15:35	4°♍32'02	
asc. node	4864 Sep 27 18:15	25°♄00'20			4869 Sep 04 12:30	0°♅	
	4864 Oct 05 11:40	0°♄			4869 Oct 23 23:07	0°♄	
	4864 Nov 29 22:35	0°♁			4869 Dec 06 12:11	0°♁	
retrograde	4865 Jan 08 16:52	9°♁05'33			4870 Jan 15 20:15	0°♂	
min. Earth dist.	4865 Feb 11 19:29	1°♁24'07	0.59977 AU		4870 Feb 23 10:03	0°♃	
	4865 Feb 15 08:52	30°♄		greatest brilliancy	4870 Mar 23 22:29	22°♃32'28	1.2m
greatest brilliancy	4865 Feb 16 02:27	29°♄42'35	-1.6m		4870 Apr 02 08:57	0°♄	
opposition	4865 Feb 17 08:35	29°♄12'48	4°44'13	evening set	4870 Apr 08 15:58	4°♄57'53	
direct	4865 Mar 26 20:44	20°♄33'50			4870 May 10 16:57	0°♂	
	4865 May 09 16:12	0°♁		asc. node	4870 May 20 15:05	7°♂38'02	
	4865 Jul 11 16:52	0°♄					
	4865 Sep 01 21:32	0°♍		conjunction	4870 Jun 15 15:44	27°♂18'49	0°17'28
desc. node	4865 Oct 04 18:18	20°♍14'45		minimum elong	4870 Jun 15 14:17	27°♂16'07	0°17'26
	4865 Oct 20 01:45	0°♅			4870 Jun 19 06:23	0°♄	
	4865 Dec 04 05:29	0°♄			4870 Jul 30 16:14	0°♄	
evening set	4865 Dec 09 20:49	3°♄52'38		max. Earth dist.	4870 Jul 31 22:40	0°♄53'41	2.47833 AU
max. Earth dist.	4865 Dec 24 08:11	13°♄58'00	2.49415 AU	morning rise	4870 Aug 16 02:00	11°♄28'08	
	4866 Jan 15 19:02	0°♁			4870 Sep 12 07:30	0°♁	
					4870 Oct 28 09:21	0°♄	
conjunction	4866 Jan 30 05:17	10°♁32'35	0°-56'-47		4870 Dec 16 10:46	0°♍	
minimum elong	4866 Jan 30 03:44	10°♁29'44	0°56'46		4871 Feb 09 08:02	0°♅	
	4866 Feb 25 06:01	0°♂		retrograde	4871 Apr 25 21:02	23°♅13'29	
morning rise	4866 Mar 29 13:35	24°♂48'13		desc. node	4871 May 27 15:05	17°♅04'40	
	4866 Apr 05 06:00	0°♃		opposition	4871 Jun 02 23:45	14°♅42'49	0°-14'-52
	4866 May 13 13:16	0°♄		greatest brilliancy	4871 Jun 03 01:36	14°♅41'03	-1.5m
	4866 Jun 21 00:19	0°♂		min. Earth dist.	4871 Jun 08 21:24	12°♅27'59	0.61146 AU
	4866 Jul 30 13:33	0°♄		direct	4871 Jul 14 03:10	4°♅49'05	
asc. node	4866 Aug 15 17:02	11°♄51'07			4871 Sep 26 13:33	0°♄	
	4866 Sep 10 05:57	0°♄			4871 Nov 13 10:11	0°♁	
	4866 Oct 25 15:10	0°♁			4871 Dec 25 02:27	0°♂	
	4866 Dec 18 17:00	0°♄			4872 Feb 02 06:25	0°♃	
retrograde	4867 Feb 13 09:33	15°♄35'33			4872 Mar 11 15:37	0°♄	
min. Earth dist.	4867 Mar 24 02:48	6°♄22'32	0.66923 AU	asc. node	4872 Apr 06 13:59	20°♄08'00	
opposition	4867 Mar 25 19:09	5°♄42'16	4°09'58		4872 Apr 19 10:43	0°♂	
greatest brilliancy	4867 Mar 25 10:57	5°♄50'27	-1.3m		4872 May 29 12:53	0°♄	
	4867 Apr 10 08:15	30°♄		evening set	4872 Jun 14 03:43	11°♄20'30	
direct	4867 May 04 23:41	26°♁08'30			4872 Jul 10 11:18	0°♄	
	4867 May 31 21:15	0°♄					
	4867 Aug 09 11:38	0°♍		conjunction	4872 Aug 09 11:27	20°♄37'19	1°02'33
desc. node	4867 Aug 22 17:02	7°♍17'33		minimum elong	4872 Aug 09 10:15	20°♄35'16	1°02'32
	4867 Sep 29 22:58	0°♅			4872 Aug 23 10:28	0°♁	
	4867 Nov 15 00:58	0°♄		max. Earth dist.	4872 Sep 03 10:27	7°♁18'11	2.59627 AU
	4867 Dec 27 15:43	0°♁		morning rise	4872 Sep 28 22:16	23°♁57'55	
evening set	4868 Jan 30 03:01	24°♁54'35			4872 Oct 08 06:55	0°♄	
	4868 Feb 05 19:16	0°♂			4872 Nov 24 18:22	0°♍	
max. Earth dist.	4868 Mar 14 08:43	29°♂10'55	2.37118 AU		4873 Jan 12 22:54	0°♅	
	4868 Mar 15 09:40	0°♃			4873 Mar 06 08:30	0°♄	
				desc. node	4873 Apr 13 14:01	19°♄07'21	

	4873 May 11 20:49	0°≈			4878 Jun 24 02:38	0°⌚	
retrograde	4873 Jun 13 00:17	5°≈25'03			4878 Aug 12 08:32	0°♄	
	4873 Jul 13 00:28	30°♄			4878 Sep 29 14:37	0°♌	
opposition	4873 Jul 17 14:19	28°♄27'26	-4°-3'-34	evening set	4878 Oct 17 06:07	11°♌10'17	
greatest brilliancy	4873 Jul 19 07:16	27°♄51'59	-2.1m	max. Earth dist.	4878 Nov 13 02:28	28°♌26'05	2.63521 AU
min. Earth dist.	4873 Jul 26 02:28	25°♄31'23	0.49298 AU		4878 Nov 15 12:15	0°♊	
direct	4873 Aug 24 15:54	19°♄53'41					
	4873 Oct 04 21:20	0°≈		conjunction	4878 Dec 01 13:52	10°♊31'47	0°01'35
	4873 Nov 26 03:25	0°♋		minimum elong	4878 Dec 01 13:55	10°♊31'52	0°01'36
	4874 Jan 07 10:14	0°♌		behind sun begin	4878 Nov 30 18:59	10°♊00'39	
	4874 Feb 16 12:44	0°♍		behind sun end	4878 Dec 02 08:51	11°♊03'06	
asc. node	4874 Feb 22 11:54	4°♍29'14		desc. node	4878 Dec 04 10:01	12°♊24'22	
	4874 Mar 28 15:47	0°♎			4878 Dec 30 16:44	0°♄	
	4874 May 08 22:26	0°♏		morning rise	4879 Jan 16 09:52	11°♄25'01	
	4874 Jun 20 21:55	0°♐			4879 Feb 12 01:14	0°≈	
evening set	4874 Aug 02 21:36	28°♐49'40			4879 Mar 25 16:54	0°♋	
	4874 Aug 04 16:19	0°♑			4879 May 05 00:15	0°♌	
	4874 Sep 19 21:35	0°♒			4879 Jun 13 13:35	0°♍	
					4879 Jul 23 07:21	0°♎	
conjunction	4874 Sep 20 12:58	0°♒24'40	1°04'53		4879 Sep 02 19:38	0°♏	
minimum elong	4874 Sep 20 13:39	0°♒25'45	1°04'53	asc. node	4879 Oct 15 10:23	27°♏27'43	
max. Earth dist.	4874 Sep 28 15:45	5°♒36'30	2.66390 AU		4879 Oct 19 20:40	0°♐	
morning rise	4874 Nov 04 22:31	29°♒19'47		retrograde	4879 Dec 25 05:46	22°♒41'52	
	4874 Nov 05 23:54	0°♓		min. Earth dist.	4880 Jan 26 04:33	15°♒46'15	0.55611 AU
	4874 Dec 23 10:21	0°♊		greatest brilliancy	4880 Jan 31 14:29	13°♒40'52	-1.8m
	4875 Feb 09 00:32	0°♋		opposition	4880 Feb 02 03:00	13°♒05'31	4°27'14
desc. node	4875 Mar 01 12:23	12°♋50'49		direct	4880 Mar 09 04:17	4°♒59'03	
	4875 Mar 29 03:10	0°≈			4880 May 26 13:58	0°♑	
	4875 May 18 04:07	0°♋			4880 Jul 21 00:24	0°♒	
	4875 Jul 17 01:00	0°♌			4880 Sep 09 12:12	0°♓	
retrograde	4875 Aug 24 17:39	8°♌11'53		desc. node	4880 Oct 21 08:35	26°♓16'23	
opposition	4875 Sep 23 17:20	3°♌13'44	-6°-18'-56		4880 Oct 27 03:12	0°♊	
greatest brilliancy	4875 Sep 24 19:37	2°♌56'04	-2.8m	evening set	4880 Nov 23 09:21	17°♊56'35	
min. Earth dist.	4875 Sep 27 01:19	2°♌20'01	0.37733 AU	max. Earth dist.	4880 Dec 10 04:29	29°♊18'11	2.54243 AU
	4875 Oct 06 11:26	30°♋			4880 Dec 11 04:56	0°♄	
direct	4875 Oct 24 10:42	27°♋55'55					
	4875 Nov 11 02:18	0°♌		conjunction	4881 Jan 11 00:24	21°♄29'10	0°-42'-51
asc. node	4876 Jan 10 11:36	27°♌47'40		minimum elong	4881 Jan 10 22:57	21°♄26'35	0°42'51
	4876 Jan 14 02:50	0°♍			4881 Jan 22 21:59	0°≈	
	4876 Feb 29 15:32	0°♎			4881 Mar 04 14:58	0°♋	
	4876 Apr 14 13:16	0°♏		morning rise	4881 Mar 05 01:03	0°♋18'57	
	4876 May 29 22:46	0°♐			4881 Apr 12 21:13	0°♌	
	4876 Jul 15 08:02	0°♑			4881 May 21 09:51	0°♍	
	4876 Aug 31 12:03	0°♒			4881 Jun 29 01:10	0°♎	
evening set	4876 Sep 10 17:47	6°♒28'51			4881 Aug 07 19:13	0°♏	
	4876 Oct 17 20:25	0°♓		asc. node	4881 Sep 01 09:06	17°♏46'36	
max. Earth dist.	4876 Oct 20 14:52	1°♓45'38	2.67684 AU		4881 Sep 18 22:51	0°♐	
					4881 Nov 04 22:21	0°♑	
conjunction	4876 Oct 26 04:24	5°♓18'10	0°41'03		4882 Jan 11 13:09	0°♒	
minimum elong	4876 Oct 26 05:25	5°♓19'47	0°41'03	retrograde	4882 Jan 30 23:22	2°♒18'29	
	4876 Dec 03 16:48	0°♊			4882 Feb 18 09:08	30°♋	
morning rise	4876 Dec 09 03:49	3°♊31'55		min. Earth dist.	4882 Mar 09 01:15	23°♋37'10	0.64978 AU
desc. node	4877 Jan 16 11:13	28°♊36'01		opposition	4882 Mar 12 05:57	22°♋20'36	4°33'21
	4877 Jan 18 13:59	0°♋		greatest brilliancy	4882 Mar 11 13:21	22°♋37'11	-1.3m
	4877 Mar 04 07:47	0°≈		direct	4882 Apr 20 13:16	13°♋04'16	
	4877 Apr 16 23:18	0°♋			4882 Jun 22 00:38	0°♒	
	4877 May 29 19:29	0°♌			4882 Aug 19 00:08	0°♓	
	4877 Jul 11 16:17	0°♍		desc. node	4882 Sep 08 07:34	11°♓52'42	
	4877 Aug 26 08:01	0°♎			4882 Oct 07 18:04	0°♊	
retrograde	4877 Nov 06 02:15	27°♎07'13			4882 Nov 22 08:40	0°♄	
asc. node	4877 Nov 27 11:53	23°♎53'55			4883 Jan 03 21:56	0°≈	
min. Earth dist.	4877 Dec 02 18:53	22°♎19'05	0.42264 AU	evening set	4883 Jan 08 05:22	3°≈08'30	
opposition	4877 Dec 10 15:14	19°♎45'39	0°50'45	max. Earth dist.	4883 Jan 25 17:32	16°≈05'10	2.41329 AU
greatest brilliancy	4877 Dec 10 05:02	19°♎54'00	-2.6m		4883 Feb 13 03:48	0°♋	
direct	4878 Jan 10 23:58	13°♎43'15					
	4878 Mar 09 11:20	0°♏		conjunction	4883 Mar 07 04:44	16°♋58'02	-1°-4'-48
	4878 May 04 11:50	0°♐		minimum elong	4883 Mar 07 05:21	16°♋59'14	1°04'50

	4883 Mar 23 21:20	0°♄			4888 Mar 20 01:01	0°♂	
	4883 Apr 30 23:02	0°♂		desc. node	4888 Apr 30 04:22	14°♂51'03	
morning rise	4883 May 14 15:58	10°♂47'46		retrograde	4888 May 22 19:23	17°♂39'52	
	4883 Jun 08 05:59	0°♂		opposition	4888 Jun 28 01:31	9°♂59'19	-2°-27'-28
	4883 Jul 17 15:07	0°♂		greatest brilliancy	4888 Jun 29 01:07	9°♂37'50	-1.8m
asc. node	4883 Jul 20 08:28	2°♂01'40		min. Earth dist.	4888 Jul 05 21:04	7°♂08'52	0.54482 AU
	4883 Aug 27 22:36	0°♂		direct	4888 Aug 06 19:24	0°♂40'11	
	4883 Oct 11 02:29	0°♂			4888 Oct 24 11:05	0°♂	
	4883 Nov 28 21:50	0°♂			4888 Dec 08 07:45	0°♂	
	4884 Jan 31 10:50	0°♂			4889 Jan 17 17:11	0°♂	
retrograde	4884 Mar 05 06:27	6°♂05'24			4889 Feb 25 20:14	0°♂	
	4884 Apr 05 07:31	30°♂♂		asc. node	4889 Mar 11 05:59	10°♂16'29	
opposition	4884 Apr 14 11:59	26°♂27'18	3°13'34		4889 Apr 06 06:04	0°♂	
greatest brilliancy	4884 Apr 14 14:17	26°♂25'01	-1.2m		4889 May 16 21:54	0°♂	
min. Earth dist.	4884 Apr 15 04:21	26°♂11'04	0.67959 AU		4889 Jun 28 08:51	0°♂	
direct	4884 May 25 15:43	16°♂34'18		evening set	4889 Jul 16 04:45	12°♂12'31	
	4884 Jul 18 15:44	0°♂			4889 Aug 11 17:31	0°♂	
desc. node	4884 Jul 26 06:57	3°♂21'09					
	4884 Sep 14 15:36	0°♂		conjunction	4889 Sep 05 04:49	16°♂04'23	1°07'50
	4884 Nov 01 06:20	0°♂		minimum elong	4889 Sep 05 04:55	16°♂04'33	1°07'51
	4884 Dec 14 07:18	0°♂		max. Earth dist.	4889 Sep 19 12:33	25°♂21'23	2.64377 AU
	4885 Jan 23 12:06	0°♂			4889 Sep 26 17:31	0°♂	
	4885 Mar 03 01:02	0°♂		morning rise	4889 Oct 22 01:24	16°♂11'16	
evening set	4885 Mar 10 19:04	6°♂07'00			4889 Nov 12 21:01	0°♂	
	4885 Apr 09 23:11	0°♂			4889 Dec 30 18:54	0°♂	
	4885 May 18 05:26	0°♂			4890 Feb 17 14:42	0°♂	
				desc. node	4890 Mar 18 03:04	17°♂01'37	
conjunction	4885 May 19 03:17	0°♂42'19	0°-12'-29		4890 Apr 09 15:31	0°♂	
minimum elong	4885 May 19 04:32	0°♂44'43	0°12'29		4890 Jun 08 18:13	0°♂	
behind sun begin	4885 May 18 09:42	0°♂08'16		retrograde	4890 Jul 23 22:45	10°♂20'25	
behind sun end	4885 May 19 23:22	1°♂21'09		opposition	4890 Aug 24 13:27	4°♂43'13	-6°-17'-9
asc. node	4885 Jun 06 06:40	14°♂38'13		greatest brilliancy	4890 Aug 26 15:05	4°♂05'55	-2.6m
	4885 Jun 26 16:03	0°♂		min. Earth dist.	4890 Aug 31 16:47	2°♂35'37	0.41286 AU
max. Earth dist.	4885 Jul 10 15:33	10°♂19'37	2.42357 AU		4890 Sep 10 18:05	30°♂♂	
morning rise	4885 Jul 25 07:35	20°♂58'38		direct	4890 Sep 27 07:32	28°♂07'01	
	4885 Aug 06 23:06	0°♂			4890 Oct 13 23:24	0°♂	
	4885 Sep 19 13:50	0°♂			4890 Dec 16 04:02	0°♂	
	4885 Nov 04 23:12	0°♂		asc. node	4891 Jan 27 04:27	28°♂15'50	
	4885 Dec 25 08:17	0°♂			4891 Jan 29 16:01	0°♂	
	4886 Feb 25 02:24	0°♂			4891 Mar 13 03:16	0°♂	
retrograde	4886 Apr 10 06:10	9°♂29'08			4891 Apr 24 23:59	0°♂	
opposition	4886 May 19 05:45	0°♂34'03	0°55'18		4891 Jun 08 03:24	0°♂	
greatest brilliancy	4886 May 19 11:10	0°♂28'47	-1.4m		4891 Jul 23 17:20	0°♂	
	4886 May 20 16:52	30°♂♂		evening set	4891 Aug 27 21:46	22°♂38'55	
min. Earth dist.	4886 May 23 17:11	28°♂50'01	0.64343 AU		4891 Sep 08 10:06	0°♂	
desc. node	4886 Jun 13 05:42	22°♂18'21					
direct	4886 Jun 29 18:14	20°♂32'25		conjunction	4891 Oct 13 04:59	22°♂07'34	0°52'36
	4886 Aug 11 14:03	0°♂		minimum elong	4891 Oct 13 06:03	22°♂09'15	0°52'37
	4886 Oct 08 11:11	0°♂		max. Earth dist.	4891 Oct 12 17:27	21°♂49'14	2.67826 AU
	4886 Nov 22 19:02	0°♂			4891 Oct 25 14:22	0°♂	
	4887 Jan 02 17:14	0°♂		morning rise	4891 Nov 26 09:17	20°♂15'31	
	4887 Feb 10 12:52	0°♂			4891 Dec 11 14:13	0°♂	
	4887 Mar 20 16:01	0°♂			4892 Jan 26 23:38	0°♂	
asc. node	4887 Apr 24 06:12	26°♂57'41		desc. node	4892 Feb 03 01:51	4°♂37'45	
	4887 Apr 28 04:58	0°♂			4892 Mar 12 15:58	0°♂	
evening set	4887 May 22 02:34	18°♂09'29			4892 Apr 26 19:21	0°♂	
	4887 Jun 07 00:22	0°♂			4892 Jun 10 23:53	0°♂	
	4887 Jul 18 16:17	0°♂			4892 Jul 28 10:56	0°♂	
				retrograde	4892 Oct 11 16:51	28°♂11'28	
conjunction	4887 Jul 22 00:33	2°♂20'44	0°51'08	min. Earth dist.	4892 Nov 07 06:39	23°♂47'01	0.38258 AU
minimum elong	4887 Jul 21 22:32	2°♂17'12	0°51'07	opposition	4892 Nov 12 11:16	22°♂18'15	-2°-14'-1
max. Earth dist.	4887 Aug 23 19:46	24°♂52'49	2.55556 AU	greatest brilliancy	4892 Nov 11 23:21	22°♂26'46	-2.9m
	4887 Aug 31 10:37	0°♂		direct	4892 Dec 12 03:57	17°♂08'44	
morning rise	4887 Sep 13 21:44	8°♂56'53		asc. node	4892 Dec 14 03:31	17°♂10'17	
	4887 Oct 16 06:48	0°♂			4893 Jan 30 02:52	0°♂	
	4887 Dec 03 03:38	0°♂			4893 Mar 26 19:04	0°♂	
	4888 Jan 22 16:41	0°♂			4893 May 15 02:09	0°♂	

	4893 Jul 02 10:46	0°♎			4898 Mar 31 09:43	0°♑		
	4893 Aug 19 16:01	0°♊		morning rise	4898 Apr 14 05:01	10°♑48'42		
evening set	4893 Oct 03 02:41	27°♊52'37			4898 May 08 14:31	0°♋		
	4893 Oct 06 11:16	0°♌		greatest brilliancy	4898 May 23 15:50	11°♋49'36	1.2m	
max. Earth dist.	4893 Nov 03 20:09	18°♌04'52	2.65781 AU		4898 Jun 15 23:19	0°♈		
					4898 Jul 25 09:43	0°♎		
conjunction	4893 Nov 17 03:16	26°♌39'26	0°18'10	asc. node	4898 Aug 06 00:13	8°♎34'40		
minimum elong	4893 Nov 17 03:49	26°♌40'19	0°18'10		4898 Sep 04 20:48	0°♏		
	4893 Nov 22 06:56	0°♌			4898 Oct 19 14:41	0°♎		
desc. node	4893 Dec 21 00:55	18°♌52'43			4898 Dec 09 20:50	0°♊		
morning rise	4893 Dec 31 19:14	26°♌03'07		retrograde	4899 Feb 21 00:34	23°♊27'51		
	4894 Jan 06 16:26	0°♋		opposition	4899 Apr 02 09:51	13°♊39'01	3°51'44	
	4894 Feb 19 11:27	0°♌		greatest brilliancy	4899 Apr 02 05:55	13°♊42'56	-1.2m	
	4894 Apr 02 17:50	0°♌		min. Earth dist.	4899 Apr 01 14:01	13°♊58'47	0.67587 AU	
	4894 May 13 18:09	0°♑		direct	4899 May 12 23:51	3°♊57'13		
	4894 Jun 23 02:22	0°♋			4899 Aug 02 07:39	0°♌		
	4894 Aug 02 21:01	0°♈		desc. node	4899 Aug 12 21:23	5°♌30'39		
asc. node	4894 Sep 15 13:28	0°♎			4899 Sep 24 11:33	0°♌		
	4894 Nov 01 03:44	25°♎25'42			4899 Nov 10 01:30	0°♋		
	4894 Nov 13 18:37	0°♏			4899 Dec 22 20:05	0°♌		
retrograde	4894 Dec 08 02:30	3°♏57'37			4900 Feb 01 00:34	0°♌		
	4894 Dec 31 14:33	30°♏		evening set	4900 Feb 12 19:35	9°♌04'23		
min. Earth dist.	4895 Jan 06 18:13	27°♏53'33	0.50503 AU		4900 Mar 11 14:35	0°♑		
greatest brilliancy	4895 Jan 13 05:54	25°♏29'23	-2.1m		4900 Apr 18 13:16	0°♋		
opposition	4895 Jan 14 19:11	24°♏54'42	3°40'59					
direct	4895 Feb 18 03:18	17°♏29'49		conjunction	4900 Apr 20 04:46	1°♋18'05	0°-41'-54	
	4895 Apr 09 14:08	0°♏		minimum elong	4900 Apr 20 08:11	1°♋24'49	0°41'54	
	4895 Jun 08 09:45	0°♎			4900 May 26 18:45	0°♈		
	4895 Jul 30 10:28	0°♊		max. Earth dist.	4900 May 27 11:26	0°♈32'20	2.37443 AU	
	4895 Sep 17 19:35	0°♌		asc. node	4900 Jun 24 00:33	21°♈38'46		
	4895 Nov 04 01:47	0°♌		morning rise	4900 Jun 30 16:52	26°♈40'43		
desc. node	4895 Nov 08 00:03	2°♌33'24			4900 Jul 05 03:21	0°♎		
evening set	4895 Nov 09 00:25	3°♌13'09			4900 Aug 15 08:32	0°♏		
max. Earth dist.	4895 Nov 29 05:34	16°♌33'49	2.58436 AU		4900 Sep 28 00:49	0°♎		
	4895 Dec 19 03:30	0°♋			4900 Nov 13 23:05	0°♊		
					4901 Jan 05 14:33	0°♌		
conjunction	4895 Dec 25 20:12	4°♋35'14	0°-26'-5	retrograde	4901 Mar 27 18:24	26°♌27'58		
minimum elong	4895 Dec 25 19:17	4°♋33'38	0°26'05	opposition	4901 May 06 09:24	17°♌13'19	1°55'39	
	4896 Jan 31 01:22	0°♌		greatest brilliancy	4901 May 06 16:28	17°♌06'23	-1.3m	
morning rise	4896 Feb 13 03:37	9°♌26'23		min. Earth dist.	4901 May 09 09:41	16°♌02'29	0.66532 AU	
	4896 Mar 12 01:49	0°♌		direct	4901 Jun 16 23:16	7°♌11'07		
	4896 Apr 20 16:02	0°♑		desc. node	4901 Jun 30 20:11	8°♌19'02		
	4896 May 29 11:59	0°♋			4901 Aug 28 19:39	0°♌		
	4896 Jul 07 10:11	0°♈			4901 Oct 19 04:57	0°♋		
	4896 Aug 16 13:21	0°♎			4901 Dec 02 06:42	0°♌		
asc. node	4896 Sep 18 01:46	22°♎56'41			4902 Jan 11 19:25	0°♌		
	4896 Sep 28 14:25	0°♏			4902 Feb 19 11:02	0°♑		
	4896 Nov 18 01:59	0°♎			4902 Mar 29 11:08	0°♋		
retrograde	4897 Jan 17 00:55	18°♎09'35		evening set	4902 Apr 25 21:20	21°♋30'24		
min. Earth dist.	4897 Feb 21 06:16	10°♎05'05	0.62031 AU		4902 May 06 20:23	0°♈		
opposition	4897 Feb 25 23:11	8°♎12'58	4°44'46	asc. node	4902 May 11 23:41	3°♈57'23		
greatest brilliancy	4897 Feb 24 21:47	8°♎38'14	-1.5m		4902 Jun 15 11:02	0°♎		
	4897 Mar 25 21:04	30°♎						
direct	4897 Apr 05 04:03	29°♏19'02		conjunction	4902 Jun 30 16:34	11°♎11'39	0°31'56	
	4897 Apr 15 20:47	0°♎		minimum elong	4902 Jun 30 14:26	11°♎07'45	0°31'54	
	4897 Jul 04 18:55	0°♊			4902 Jul 26 21:56	0°♏		
	4897 Aug 27 12:40	0°♌		max. Earth dist.	4902 Aug 11 01:13	10°♏35'13	2.50732 AU	
desc. node	4897 Sep 24 22:41	17°♌13'47		morning rise	4902 Aug 28 03:09	22°♏18'13		
	4897 Oct 15 04:59	0°♌			4902 Sep 08 12:52	0°♎		
	4897 Nov 29 12:53	0°♋			4902 Oct 24 10:49	0°♊		
evening set	4897 Dec 19 20:49	14°♋06'21			4902 Dec 11 22:17	0°♌		
max. Earth dist.	4898 Jan 02 18:55	23°♋59'51	2.46567 AU		4903 Feb 02 16:10	0°♌		
	4898 Jan 11 02:43	0°♌			4903 Apr 17 13:31	0°♋		
				retrograde	4903 May 06 09:51	1°♋59'16		
conjunction	4898 Feb 11 05:28	22°♌59'19	-1°-2'-20	desc. node	4903 May 18 18:53	1°♋02'01		
minimum elong	4898 Feb 11 04:18	22°♌57'08	1°02'19		4903 May 24 05:34	30°♌		
	4898 Feb 20 12:11	0°♌		opposition	4903 Jun 12 22:56	23°♌44'26	-1°00'-24	

greatest brilliancy	4903 Jun 13 07:18	23° \mathcal{A} 36'34	-1.6m	conjunction	4908 Nov 04 02:41	13° \mathcal{M} 17'02	0°33'11
min. Earth dist.	4903 Jun 19 14:35	21° \mathcal{A} 14'24	0.59011 AU	minimum elong	4908 Nov 04 03:35	13° \mathcal{M} 18'28	0°33'12
direct	4903 Jul 23 17:55	13° \mathcal{A} 58'57			4908 Nov 30 02:14	0° \mathcal{A}	
	4903 Sep 17 21:22	0° \mathcal{C}		morning rise	4908 Dec 18 04:30	11° \mathcal{A} 46'39	
	4903 Nov 07 21:10	0° \approx		desc. node	4909 Jan 07 15:45	25° \mathcal{A} 15'30	
	4903 Dec 20 08:33	0° \mathcal{H}			4909 Jan 14 19:04	0° \mathcal{C}	
	4904 Jan 28 20:20	0° \mathcal{Y}			4909 Feb 28 03:54	0° \approx	
	4904 Mar 07 10:12	0° \mathcal{B}			4909 Apr 12 05:50	0° \mathcal{H}	
asc. node	4904 Mar 28 21:49	16° \mathcal{B} 37'57			4909 May 24 06:33	0° \mathcal{Y}	
	4904 Apr 15 09:08	0° \mathcal{II}			4909 Jul 04 21:53	0° \mathcal{B}	
	4904 May 25 14:44	0° \mathcal{S}			4909 Aug 16 20:10	0° \mathcal{II}	
evening set	4904 Jun 27 10:54	23° \mathcal{S} 32'27			4909 Oct 06 12:07	0° \mathcal{S}	
	4904 Jul 06 16:22	0° \mathcal{Q}		asc. node	4909 Nov 18 18:54	11° \mathcal{S} 56'55	
	4904 Aug 19 17:46	0° \mathcal{M}		retrograde	4909 Nov 19 14:21	11° \mathcal{S} 57'13	
				min. Earth dist.	4909 Dec 17 03:38	6° \mathcal{S} 44'46	0.45111 AU
conjunction	4904 Aug 20 14:52	0° \mathcal{M} 35'10	1°06'07	greatest brilliancy	4909 Dec 24 10:35	4° \mathcal{S} 13'46	-2.4m
minimum elong	4904 Aug 20 14:11	0° \mathcal{M} 34'01	1°06'06	opposition	4909 Dec 25 12:07	3° \mathcal{S} 51'38	2°10'09
max. Earth dist.	4904 Sep 10 13:23	14° \mathcal{M} 24'16	2.61548 AU		4910 Jan 06 21:15	30° \mathcal{R} \mathcal{II}	
	4904 Oct 04 14:24	0° \mathcal{A}		direct	4910 Jan 26 21:22	27° \mathcal{II} 17'46	
morning rise	4904 Oct 08 13:51	2° \mathcal{A} 33'19			4910 Feb 17 03:23	0° \mathcal{S}	
	4904 Nov 20 21:29	0° \mathcal{M}			4910 Apr 27 12:36	0° \mathcal{Q}	
	4905 Jan 08 12:11	0° \mathcal{A}			4910 Jun 19 05:24	0° \mathcal{M}	
	4905 Feb 28 05:30	0° \mathcal{C}			4910 Aug 08 06:41	0° \mathcal{A}	
desc. node	4905 Apr 04 17:23	19° \mathcal{C} 24'21			4910 Sep 25 21:14	0° \mathcal{M}	
	4905 Apr 26 09:18	0° \approx		evening set	4910 Oct 26 09:53	19° \mathcal{M} 20'44	
retrograde	4905 Jun 27 13:53	17° \approx 14'21			4910 Nov 11 21:49	0° \mathcal{A}	
opposition	4905 Jul 31 02:41	10° \approx 43'49	-4°-58'-39	max. Earth dist.	4910 Nov 19 19:28	5° \mathcal{A} 09'25	2.61940 AU
greatest brilliancy	4905 Aug 02 03:11	10° \approx 03'24	-2.3m	desc. node	4910 Nov 25 14:22	8° \mathcal{A} 57'27	
min. Earth dist.	4905 Aug 08 13:23	7° \approx 55'56	0.46352 AU				
direct	4905 Sep 05 21:13	2° \approx 45'23		conjunction	4910 Dec 11 02:17	19° \mathcal{A} 14'23	0°-8'-33
	4905 Nov 17 14:09	0° \mathcal{H}		minimum elong	4910 Dec 11 01:59	19° \mathcal{A} 13'53	0°08'33
	4906 Jan 01 05:11	0° \mathcal{Y}		behind sun begin	4910 Dec 10 09:19	18° \mathcal{A} 46'03	
	4906 Feb 11 06:12	0° \mathcal{B}		behind sun end	4910 Dec 11 18:39	19° \mathcal{A} 41'43	
asc. node	4906 Feb 13 21:13	1° \mathcal{B} 56'32			4910 Dec 27 01:39	0° \mathcal{C}	
	4906 Mar 23 23:02	0° \mathcal{II}		morning rise	4911 Jan 26 21:22	21° \mathcal{C} 15'52	
	4906 May 04 15:28	0° \mathcal{S}			4911 Feb 08 06:34	0° \approx	
	4906 Jun 16 22:26	0° \mathcal{Q}			4911 Mar 21 16:55	0° \mathcal{H}	
	4906 Jul 31 22:07	0° \mathcal{M}			4911 Apr 30 17:49	0° \mathcal{Y}	
evening set	4906 Aug 13 07:01	8° \mathcal{M} 04'42			4911 Jun 08 23:53	0° \mathcal{B}	
	4906 Sep 16 06:31	0° \mathcal{A}			4911 Jul 18 08:34	0° \mathcal{II}	
					4911 Aug 28 03:47	0° \mathcal{S}	
conjunction	4906 Sep 29 22:27	8° \mathcal{A} 44'09	1°01'20	asc. node	4911 Oct 06 18:56	26° \mathcal{S} 45'07	
minimum elong	4906 Sep 29 23:20	8° \mathcal{A} 45'33	1°01'20		4911 Oct 12 00:01	0° \mathcal{Q}	
max. Earth dist.	4906 Oct 04 21:45	11° \mathcal{A} 54'18	2.67133 AU		4911 Dec 14 14:09	0° \mathcal{M}	
	4906 Nov 02 08:44	0° \mathcal{M}		retrograde	4912 Jan 04 06:43	2° \mathcal{M} 45'58	
morning rise	4906 Nov 13 18:26	7° \mathcal{M} 14'16			4912 Jan 23 23:10	30° \mathcal{R} \mathcal{Q}	
	4906 Dec 19 14:34	0° \mathcal{A}		min. Earth dist.	4912 Feb 06 10:28	25° \mathcal{Q} 24'07	0.58129 AU
	4907 Feb 04 16:34	0° \mathcal{C}		greatest brilliancy	4912 Feb 11 05:22	23° \mathcal{Q} 31'42	-1.7m
desc. node	4907 Feb 20 16:52	10° \mathcal{C} 13'24		opposition	4912 Feb 12 14:46	22° \mathcal{Q} 58'55	4°40'19
	4907 Mar 23 17:16	0° \approx		direct	4912 Mar 20 12:01	14° \mathcal{Q} 33'23	
	4907 May 10 08:29	0° \mathcal{H}			4912 May 17 21:20	0° \mathcal{M}	
	4907 Jun 29 23:17	0° \mathcal{Y}			4912 Jul 15 22:57	0° \mathcal{A}	
retrograde	4907 Sep 13 02:52	26° \mathcal{Y} 16'45			4912 Sep 05 09:36	0° \mathcal{M}	
opposition	4907 Oct 13 05:09	21° \mathcal{Y} 17'42	-5°-19'-41	desc. node	4912 Oct 12 12:49	23° \mathcal{M} 03'21	
greatest brilliancy	4907 Oct 13 10:48	21° \mathcal{Y} 13'57	-2.9m		4912 Oct 23 09:01	0° \mathcal{A}	
min. Earth dist.	4907 Oct 13 08:00	21° \mathcal{Y} 15'48	0.36983 AU	evening set	4912 Dec 03 14:34	27° \mathcal{A} 18'36	
direct	4907 Nov 11 21:35	16° \mathcal{Y} 21'39			4912 Dec 07 13:13	0° \mathcal{C}	
	4907 Dec 31 05:59	0° \mathcal{B}		max. Earth dist.	4912 Dec 18 21:01	7° \mathcal{C} 48'13	2.51642 AU
asc. node	4908 Jan 01 20:13	0° \mathcal{B} 45'57			4913 Jan 19 05:25	0° \approx	
	4908 Feb 22 01:38	0° \mathcal{II}					
	4908 Apr 08 23:30	0° \mathcal{S}		conjunction	4913 Jan 22 14:29	2° \approx 26'36	0°-51'-23
	4908 May 25 08:39	0° \mathcal{Q}		minimum elong	4913 Jan 22 12:54	2° \approx 23'43	0°51'23
	4908 Jul 11 07:10	0° \mathcal{M}			4913 Feb 28 20:03	0° \mathcal{H}	
	4908 Aug 27 18:40	0° \mathcal{A}		morning rise	4913 Mar 19 08:43	14° \mathcal{H} 05'42	
evening set	4908 Sep 19 22:47	14° \mathcal{A} 36'50			4913 Apr 08 23:20	0° \mathcal{Y}	
	4908 Oct 14 06:15	0° \mathcal{M}			4913 May 17 09:01	0° \mathcal{B}	
max. Earth dist.	4908 Oct 26 19:06	7° \mathcal{M} 58'24	2.67246 AU		4913 Jun 24 21:32	0° \mathcal{II}	

	4913 Aug 03 11:33	0°☿		desc. node	4918 Jun 04 09:37	6°♂24'30	
asc. node	4913 Aug 23 18:06	14°☿48'49			4918 Jun 26 20:50	30°♂♂	
	4913 Sep 14 06:16	0°♂		direct	4918 Jul 08 21:59	29°♂03'13	
	4913 Oct 30 01:53	0°♂			4918 Jul 21 08:03	0°♂	
	4913 Dec 25 23:46	0°♂			4918 Oct 02 06:13	0°♂	
retrograde	4914 Feb 08 17:48	10°♂29'22			4918 Nov 17 22:35	0°♂	
min. Earth dist.	4914 Mar 18 18:04	1°♂29'42	0.66173 AU		4918 Dec 29 07:34	0°♂	
opposition	4914 Mar 21 02:16	0°♂33'34	4°21'03		4919 Feb 06 08:09	0°♂	
greatest brilliancy	4914 Mar 20 14:30	0°♂45'19	-1.3m		4919 Mar 16 14:23	0°♂	
	4914 Mar 22 11:55	30°♂♂		asc. node	4919 Apr 15 15:05	23°♂22'15	
direct	4914 Apr 29 21:27	21°♂06'58			4919 Apr 24 06:05	0°♂	
	4914 Jun 11 16:08	0°♂			4919 Jun 03 04:04	0°☿	
	4914 Aug 13 19:57	0°♂		evening set	4919 Jun 06 01:45	2°☿08'02	
desc. node	4914 Aug 30 11:41	9°♂25'59			4919 Jul 14 22:06	0°♂	
	4914 Oct 03 13:59	0°♂					
	4914 Nov 18 12:40	0°♂		conjunction	4919 Aug 03 08:16	13°♂28'26	0°58'33
	4914 Dec 31 04:03	0°♂		minimum elong	4919 Aug 03 06:40	13°♂25'43	0°58'32
evening set	4915 Jan 21 05:37	15°♂31'20			4919 Aug 27 17:42	0°♂	
	4915 Feb 09 09:41	0°♂		max. Earth dist.	4919 Aug 31 15:20	2°♂36'20	2.57898 AU
max. Earth dist.	4915 Feb 16 02:41	5°♂08'13	2.38700 AU	morning rise	4919 Sep 24 04:54	18°♂08'25	
	4915 Mar 20 01:54	0°♂			4919 Oct 12 12:40	0°♂	
					4919 Nov 29 02:43	0°♂	
conjunction	4915 Mar 23 05:24	2°♂28'21	-1°00'-38		4920 Jan 17 18:39	0°♂	
minimum elong	4915 Mar 23 07:28	2°♂32'25	1°00'39		4920 Mar 11 18:15	0°♂	
	4915 Apr 27 02:10	0°♂		desc. node	4920 Apr 21 08:46	18°♂26'24	
morning rise	4915 Jun 02 05:57	28°♂22'41		retrograde	4920 Jun 04 10:22	27°♂53'50	
	4915 Jun 04 08:05	0°♂		opposition	4920 Jul 09 18:41	20°♂35'57	-3°-21'-43
asc. node	4915 Jul 11 16:11	28°♂30'16		greatest brilliancy	4920 Jul 11 04:19	20°♂06'05	-2.0m
	4915 Jul 13 16:10	0°☿		min. Earth dist.	4920 Jul 18 01:14	17°♂39'57	0.51663 AU
	4915 Aug 23 21:25	0°♂		direct	4920 Aug 17 16:20	11°♂38'57	
	4915 Oct 06 18:46	0°♂			4920 Oct 15 05:38	0°♂	
	4915 Nov 23 15:23	0°♂			4920 Dec 02 04:08	0°♂	
	4916 Jan 19 20:30	0°♂			4921 Jan 12 11:55	0°♂	
retrograde	4916 Mar 13 23:56	13°♂47'57			4921 Feb 21 02:18	0°♂	
opposition	4916 Apr 23 01:17	4°♂17'26	2°47'10	asc. node	4921 Mar 02 12:45	7°♂10'02	
greatest brilliancy	4916 Apr 23 06:06	4°♂12'41	-1.2m		4921 Apr 01 20:19	0°♂	
min. Earth dist.	4916 Apr 24 13:52	3°♂41'16	0.67726 AU		4921 May 12 18:55	0°☿	
	4916 May 04 06:29	30°♂♂			4921 Jun 24 11:21	0°♂	
direct	4916 Jun 03 09:50	24°♂19'56		evening set	4921 Jul 27 12:06	22°♂21'42	
	4916 Jul 06 09:09	0°♂			4921 Aug 08 00:12	0°♂	
desc. node	4916 Jul 17 10:32	3°♂50'14					
	4916 Sep 09 05:19	0°♂		conjunction	4921 Sep 15 02:07	24°♂50'55	1°06'37
	4916 Oct 27 21:38	0°♂		minimum elong	4921 Sep 15 02:35	24°♂51'40	1°06'37
	4916 Dec 10 06:44	0°♂			4921 Sep 23 02:10	0°♂	
	4917 Jan 19 14:32	0°♂		max. Earth dist.	4921 Sep 25 23:03	1°♂50'33	2.65600 AU
	4917 Feb 27 04:24	0°♂		morning rise	4921 Oct 31 01:16	24°♂13'08	
evening set	4917 Mar 27 21:53	22°♂42'59			4921 Nov 09 04:16	0°♂	
	4917 Apr 06 02:47	0°♂			4921 Dec 26 19:13	0°♂	
	4917 May 14 09:23	0°♂			4922 Feb 12 20:57	0°♂	
asc. node	4917 May 28 15:53	10°♂59'08		desc. node	4922 Mar 09 07:18	15°♂02'30	
					4922 Apr 03 01:00	0°♂	
conjunction	4917 Jun 05 00:46	16°♂36'06	0°05'05		4922 May 25 21:37	0°♂	
minimum elong	4917 Jun 05 00:18	16°♂35'12	0°05'05	retrograde	4922 Aug 11 09:51	25°♂49'38	
behind sun begin	4917 Jun 03 21:00	15°♂43'23		opposition	4922 Sep 10 22:25	20°♂38'27	-6°-32'-23
behind sun end	4917 Jun 06 03:35	17°♂26'56		greatest brilliancy	4922 Sep 12 14:40	20°♂10'14	-2.7m
	4917 Jun 22 20:24	0°☿		min. Earth dist.	4922 Sep 16 08:39	19°♂07'32	0.39029 AU
max. Earth dist.	4917 Jul 24 16:26	23°☿15'42	2.45393 AU	direct	4922 Oct 12 22:07	14°♂49'21	
	4917 Aug 03 03:29	0°♂			4922 Dec 03 05:51	0°♂	
morning rise	4917 Aug 08 01:07	3°♂27'31		asc. node	4923 Jan 18 12:24	27°♂41'04	
	4917 Sep 15 16:52	0°♂			4923 Jan 22 00:52	0°♂	
	4917 Oct 31 19:49	0°♂			4923 Mar 07 06:28	0°♂	
	4917 Dec 20 06:50	0°♂			4923 Apr 20 02:14	0°☿	
	4918 Feb 15 02:43	0°♂			4923 Jun 03 19:53	0°♂	
retrograde	4918 Apr 20 00:32	17°♂43'42			4923 Jul 19 19:12	0°♂	
opposition	4918 May 28 13:26	9°♂01'37	0°15'36		4923 Sep 04 17:33	0°♂	
greatest brilliancy	4918 May 28 15:10	8°♂59'57	-1.5m	evening set	4923 Sep 06 11:36	1°♂06'47	
min. Earth dist.	4918 Jun 02 20:16	6°♂59'52	0.62687 AU	max. Earth dist.	4923 Oct 18 20:25	28°♂00'09	2.67862 AU

	4923 Oct 21 23:51	0°♌			4928 Aug 11 22:05	0°♏		
				asc. node	4928 Sep 09 10:06	20°♏27'07		
conjunction	4923 Oct 22 05:40	0°♌09'15	0°46'09		4928 Sep 23 07:18	0°♏		
minimum elong	4923 Oct 22 06:44	0°♌10'56	0°46'09		4928 Nov 10 06:04	0°♐		
morning rise	4923 Dec 05 05:39	28°♌16'23		retrograde	4929 Jan 26 03:09	26°♐51'12		
	4923 Dec 07 22:01	0°♐		min. Earth dist.	4929 Mar 03 09:46	18°♐25'15	0.63779 AU	
	4924 Jan 23 00:46	0°♑		greatest brilliancy	4929 Mar 06 09:44	17°♐13'30	-1.4m	
desc. node	4924 Jan 25 06:18	1°♑28'01		opposition	4929 Mar 07 06:12	16°♐53'03	4°39'59	
	4924 Mar 08 04:19	0°♒		direct	4929 Apr 15 01:52	7°♐45'59		
	4924 Apr 21 10:33	0°♓			4929 Jun 27 22:40	0°♑		
	4924 Jun 04 03:36	0°♑			4929 Aug 22 21:56	0°♌		
	4924 Jul 18 10:56	0°♒		desc. node	4929 Sep 16 02:19	14°♌22'12		
	4924 Sep 06 04:22	0°♐			4929 Oct 11 05:41	0°♐		
retrograde	4924 Oct 27 14:01	15°♐26'50			4929 Nov 25 18:45	0°♑		
min. Earth dist.	4924 Nov 22 22:27	10°♐53'53	0.40221 AU	evening set	4929 Dec 31 13:33	25°♑04'00		
opposition	4924 Nov 29 21:57	8°♐44'56	0°-22'-55		4930 Jan 07 09:33	0°♒		
greatest brilliancy	4924 Nov 29 18:28	8°♐47'37	-2.7m	max. Earth dist.	4930 Jan 15 11:31	5°♒53'31	2.43656 AU	
asc. node	4924 Dec 05 13:01	7°♐03'32			4930 Feb 16 18:03	0°♓		
direct	4924 Dec 30 11:29	3°♐08'01						
	4925 Mar 18 05:28	0°♏		conjunction	4930 Feb 25 07:37	6°♓32'14	-1°-5'-7	
	4925 May 09 12:04	0°♏		minimum elong	4930 Feb 25 07:18	6°♓31'36	1°05'07	
	4925 Jun 27 23:52	0°♐			4930 Mar 27 14:02	0°♑		
	4925 Aug 15 18:03	0°♑		morning rise	4930 May 02 00:30	27°♑52'35		
	4925 Oct 02 19:22	0°♌			4930 May 04 17:09	0°♒		
evening set	4925 Oct 12 04:54	5°♌56'29			4930 Jun 12 00:27	0°♐		
max. Earth dist.	4925 Nov 10 05:39	24°♌30'51	2.64642 AU		4930 Jul 21 09:07	0°♏		
	4925 Nov 18 16:50	0°♐		asc. node	4930 Jul 28 09:51	5°♏13'41		
					4930 Aug 31 16:13	0°♏		
conjunction	4925 Nov 26 07:46	4°♐58'12	0°08'39		4930 Oct 14 23:09	0°♐		
minimum elong	4925 Nov 26 08:02	4°♐58'38	0°08'40		4930 Dec 03 11:11	0°♑		
behind sun begin	4925 Nov 25 15:54	4°♐32'17			4931 Feb 15 09:23	0°♌		
behind sun end	4925 Nov 27 00:10	5°♐25'00		retrograde	4931 Mar 01 14:55	1°♌12'26		
desc. node	4925 Dec 12 05:04	15°♐25'23			4931 Mar 15 05:48	30°♒♑		
	4926 Jan 03 00:20	0°♑		opposition	4931 Apr 10 22:30	21°♑29'10	3°30'24	
morning rise	4926 Jan 10 13:04	5°♑05'57		greatest brilliancy	4931 Apr 10 22:18	21°♑29'22	-1.2m	
	4926 Feb 15 14:13	0°♒		min. Earth dist.	4931 Apr 10 23:05	21°♑28'35	0.67915 AU	
	4926 Mar 29 12:50	0°♓		direct	4931 May 21 20:17	11°♑40'35		
	4926 May 09 03:45	0°♑			4931 Jul 26 01:39	0°♌		
	4926 Jun 18 00:33	0°♒		desc. node	4931 Aug 04 01:59	4°♌19'06		
	4926 Jul 28 03:05	0°♐			4931 Sep 19 18:10	0°♐		
	4926 Sep 08 06:55	0°♏			4931 Nov 05 23:18	0°♑		
asc. node	4926 Oct 23 11:39	27°♏43'20			4931 Dec 18 22:45	0°♓		
	4926 Oct 27 21:22	0°♏			4932 Jan 28 04:21	0°♓		
retrograde	4926 Dec 19 02:59	15°♏23'37		evening set	4932 Feb 28 16:07	24°♓25'33		
min. Earth dist.	4927 Jan 19 00:53	8°♏50'31	0.53400 AU		4932 Mar 06 18:17	0°♑		
greatest brilliancy	4927 Jan 24 22:31	6°♏36'02	-1.9m		4932 Apr 13 16:34	0°♒		
opposition	4927 Jan 26 12:27	5°♏59'49	4°12'23					
	4927 Feb 14 07:45	30°♒♏		conjunction	4932 May 07 04:41	18°♒31'06	0°-25'-52	
direct	4927 Mar 02 20:21	28°♏10'38		minimum elong	4932 May 07 07:12	18°♒36'03	0°25'52	
	4927 Mar 20 08:10	0°♏			4932 May 21 21:58	0°♐		
	4927 Jun 02 02:30	0°♐		asc. node	4932 Jun 14 08:01	17°♐59'21		
	4927 Jul 25 21:20	0°♑		max. Earth dist.	4932 Jun 27 16:23	28°♐03'22	2.39964 AU	
	4927 Sep 13 21:27	0°♌			4932 Jun 30 06:47	0°♏		
desc. node	4927 Oct 30 03:27	29°♌11'13		morning rise	4932 Jul 15 16:13	11°♏23'26		
	4927 Oct 31 09:35	0°♐			4932 Aug 10 11:33	0°♏		
evening set	4927 Nov 18 16:25	11°♐58'04			4932 Sep 23 01:14	0°♐		
max. Earth dist.	4927 Dec 06 21:21	24°♐08'18	2.56213 AU		4932 Nov 08 13:24	0°♑		
	4927 Dec 15 12:33	0°♑			4932 Dec 29 15:01	0°♌		
					4933 Mar 07 10:31	0°♐		
conjunction	4928 Jan 05 09:34	14°♑25'41	0°-35'-59	retrograde	4933 Apr 04 22:30	4°♐19'56		
minimum elong	4928 Jan 05 08:18	14°♑23'28	0°35'58		4933 May 01 04:56	30°♒♌		
	4928 Jan 27 08:52	0°♒		opposition	4933 May 14 05:37	25°♌15'41	1°21'27	
morning rise	4928 Feb 25 13:43	21°♒18'01		greatest brilliancy	4933 May 14 12:14	25°♌09'15	-1.3m	
	4928 Mar 08 06:01	0°♓		min. Earth dist.	4933 May 18 01:46	23°♌45'56	0.65450 AU	
	4928 Apr 16 16:18	0°♑		desc. node	4933 Jun 21 00:34	15°♌18'21		
	4928 May 25 08:01	0°♒		direct	4933 Jun 24 19:25	15°♌12'53		
	4928 Jul 03 01:39	0°♐			4933 Aug 19 13:16	0°♐		

	4933 Oct 13 02:24	0°☾		conjunction	4938 Oct 08 04:05	16°♊55'56	0°56'36
	4933 Nov 26 21:41	0°♊		minimum elong	4938 Oct 08 05:06	16°♊57'32	0°56'36
	4934 Jan 06 16:27	0°♋		max. Earth dist.	4938 Oct 10 02:42	18°♊10'01	2.67618 AU
	4934 Feb 14 10:39	0°♌			4938 Oct 28 17:31	0°♌	
	4934 Mar 24 12:05	0°♍		morning rise	4938 Nov 21 13:57	15°♌10'06	
	4934 May 01 22:33	0°♎			4938 Dec 14 19:59	0°♏	
asc. node	4934 May 02 07:03	0°♎16'21			4939 Jan 30 12:27	0°☾	
evening set	4934 May 11 14:45	7°♎25'23		desc. node	4939 Feb 10 20:38	7°☾20'00	
	4934 Jun 10 14:44	0°☾			4939 Mar 17 18:06	0°♊	
					4939 May 02 20:01	0°♋	
conjunction	4934 Jul 13 18:03	24°☾04'08	0°43'58		4939 Jun 18 17:56	0°♌	
minimum elong	4934 Jul 13 15:49	24°☾00'10	0°43'56		4939 Aug 10 04:47	0°♍	
	4934 Jul 22 02:55	0°♎		retrograde	4939 Sep 30 21:38	14°♍46'35	
max. Earth dist.	4934 Aug 19 06:13	19°♎30'49	2.53489 AU	min. Earth dist.	4939 Oct 28 14:16	10°♍15'10	0.37268 AU
	4934 Sep 03 18:20	0°♏		opposition	4939 Oct 31 15:25	9°♍25'32	-3°-41'-50
morning rise	4934 Sep 07 12:10	2°♏30'19		greatest brilliancy	4939 Oct 31 06:34	9°♍31'33	-2.9m
	4934 Oct 19 13:39	0°♐		direct	4939 Nov 29 23:04	4°♍29'52	
	4934 Dec 06 14:52	0°♑		asc. node	4939 Dec 23 04:29	7°♍51'02	
	4935 Jan 26 21:33	0°♏			4940 Feb 11 06:05	0°♎	
	4935 Mar 28 21:45	0°☾			4940 Apr 01 16:33	0°☾	
desc. node	4935 May 08 22:58	10°☾50'20			4940 May 19 11:08	0°♎	
retrograde	4935 May 16 13:55	11°☾10'48			4940 Jul 06 02:46	0°♏	
opposition	4935 Jun 22 10:30	3°☾14'01	-1°-49'-16		4940 Aug 22 23:18	0°♐	
greatest brilliancy	4935 Jun 23 03:05	2°☾58'40	-1.7m	evening set	4940 Sep 28 02:19	22°♐42'25	
min. Earth dist.	4935 Jun 29 18:18	0°☾31'23	0.56611 AU		4940 Oct 09 15:05	0°♑	
	4935 Jul 01 05:05	30°♑♏		max. Earth dist.	4940 Nov 01 01:20	14°♑16'29	2.66537 AU
direct	4935 Aug 01 17:11	23°♏40'53					
	4935 Sep 03 14:12	0°☾		conjunction	4940 Nov 12 03:03	21°♑22'47	0°24'37
	4935 Oct 31 13:49	0°♊		minimum elong	4940 Nov 12 03:46	21°♑23'56	0°24'37
	4935 Dec 14 06:04	0°♋			4940 Nov 25 11:21	0°♏	
	4936 Jan 23 05:23	0°♌		morning rise	4940 Dec 26 11:02	20°♏18'09	
	4936 Mar 02 01:41	0°♍		desc. node	4940 Dec 28 19:22	21°♏51'30	
asc. node	4936 Mar 19 06:51	13°♍16'04			4941 Jan 10 00:35	0°☾	
	4936 Apr 10 05:26	0°♎			4941 Feb 23 02:20	0°♊	
	4936 May 20 15:18	0°☾			4941 Apr 06 17:28	0°♋	
	4936 Jul 01 20:25	0°♎			4941 May 18 04:16	0°♌	
evening set	4936 Jul 08 23:05	4°♎55'08			4941 Jun 28 00:15	0°♍	
	4936 Aug 15 00:31	0°♏			4941 Aug 08 11:57	0°♎	
					4941 Sep 22 22:32	0°☾	
conjunction	4936 Aug 30 06:20	10°♏04'43	1°07'44	asc. node	4941 Nov 09 04:32	22°☾03'09	
minimum elong	4936 Aug 30 06:09	10°♏04'24	1°07'44	retrograde	4941 Dec 01 00:35	25°☾18'59	
max. Earth dist.	4936 Sep 16 10:53	21°♏18'08	2.63217 AU	min. Earth dist.	4941 Dec 29 15:37	19°☾39'00	0.48084 AU
	4936 Sep 29 21:49	0°♐		opposition	4942 Jan 06 23:47	16°☾38'42	3°09'02
morning rise	4936 Oct 16 23:09	10°♐55'32		greatest brilliancy	4942 Jan 05 13:28	17°☾09'46	-2.2m
	4936 Nov 16 02:01	0°♑		direct	4942 Feb 09 11:56	9°☾35'33	
	4937 Jan 03 06:09	0°♏			4942 Apr 17 23:44	0°♎	
	4937 Feb 21 18:33	0°☾			4942 Jun 12 23:15	0°♏	
desc. node	4937 Mar 25 21:50	18°☾36'15			4942 Aug 03 01:24	0°♐	
	4937 Apr 15 17:51	0°♊			4942 Sep 21 02:28	0°♑	
	4937 Jul 06 14:40	0°♋		evening set	4942 Nov 03 16:44	27°♑40'09	
retrograde	4937 Jul 12 09:10	0°♋12'19			4942 Nov 07 07:01	0°♏	
	4937 Jul 18 02:16	30°♑♊		desc. node	4942 Nov 15 18:32	5°♏31'51	
opposition	4937 Aug 13 21:12	24°♊11'07	-5°-47'-56	max. Earth dist.	4942 Nov 25 18:04	12°♏05'57	2.60087 AU
greatest brilliancy	4937 Aug 16 00:58	23°♊30'11	-2.4m				
min. Earth dist.	4937 Aug 21 21:00	21°♊40'51	0.43454 AU	conjunction	4942 Dec 19 22:33	28°♏18'07	0°-18'-45
direct	4937 Sep 18 01:14	16°♊56'11		minimum elong	4942 Dec 19 21:54	28°♏16'59	0°18'44
	4937 Nov 03 23:48	0°♋			4942 Dec 22 10:33	0°☾	
	4937 Dec 23 19:35	0°♌			4943 Feb 03 12:31	0°♊	
asc. node	4938 Feb 04 05:43	29°♌52'49		morning rise	4943 Feb 06 00:01	1°♊46'10	
	4938 Feb 04 09:42	0°♍			4943 Mar 16 17:56	0°♋	
	4938 Mar 17 22:10	0°♎			4943 Apr 25 13:19	0°♌	
	4938 Apr 29 03:57	0°☾			4943 Jun 03 13:38	0°♍	
	4938 Jun 11 20:14	0°♎			4943 Jul 12 15:34	0°♎	
	4938 Jul 27 02:29	0°♏			4943 Aug 21 23:43	0°☾	
evening set	4938 Aug 22 08:07	16°♏59'58		asc. node	4943 Sep 27 03:01	25°☾08'15	
	4938 Sep 11 14:32	0°♐			4943 Oct 04 13:03	0°♎	
					4943 Nov 26 18:03	0°♏	

retrograde	4944 Jan 12 21:10	12°♏11'44		greatest brilliancy	4949 Mar 16 03:13	17°♑15'46	1.2m
min. Earth dist.	4944 Feb 16 04:46	4°♏25'09	0.60401 AU		4949 Apr 01 05:49	0°♎	
greatest brilliancy	4944 Feb 20 08:04	2°♏47'03	-1.6m	evening set	4949 Apr 13 06:57	9°♎29'56	
opposition	4944 Feb 21 13:13	2°♏18'10	4°45'28		4949 May 09 13:12	0°♏	
	4944 Feb 27 12:02	30°♏♏		asc. node	4949 May 19 00:42	7°♏18'13	
direct	4944 Mar 30 04:10	23°♏♏36'04			4949 Jun 18 01:12	0°♏	
	4944 May 04 08:17	0°♏					
	4944 Jul 09 11:07	0°♏		conjunction	4949 Jun 19 22:44	1°♏24'34	0°21'15
	4944 Aug 31 04:04	0°♏		minimum elong	4949 Jun 19 21:03	1°♏21'27	0°21'13
desc. node	4944 Oct 02 17:13	19°♏56'11			4949 Jul 29 08:56	0°♏	
	4944 Oct 18 14:05	0°♏		max. Earth dist.	4949 Aug 04 03:18	4°♏04'02	2.48388 AU
	4944 Dec 02 21:36	0°♏		morning rise	4949 Aug 19 18:52	14°♏57'32	
evening set	4944 Dec 13 04:51	7°♏05'09			4949 Sep 10 21:28	0°♏	
max. Earth dist.	4944 Dec 27 08:37	16°♏59'18	2.48882 AU		4949 Oct 26 19:36	0°♏	
	4945 Jan 14 13:44	0°♏			4949 Dec 14 14:14	0°♏	
					4950 Feb 06 14:27	0°♏	
conjunction	4945 Feb 02 22:06	14°♏09'12	0°-58'-25	retrograde	4950 Apr 29 04:05	26°♏13'05	
minimum elong	4945 Feb 02 20:38	14°♏06'29	0°58'26	desc. node	4950 May 25 13:30	21°♏53'15	
	4945 Feb 24 02:16	0°♏		opposition	4950 Jun 06 04:31	17°♏45'22	0°-27'-16
morning rise	4945 Apr 02 23:25	29°♏06'42		greatest brilliancy	4950 Jun 06 07:59	17°♏42'05	-1.5m
	4945 Apr 04 02:49	0°♏		min. Earth dist.	4950 Jun 12 05:53	15°♏27'12	0.60773 AU
	4945 May 12 09:41	0°♏		direct	4950 Jul 17 06:36	7°♏52'33	
	4945 Jun 19 19:27	0°♏			4950 Sep 23 22:28	0°♏	
	4945 Jul 29 06:18	0°♏			4950 Nov 11 18:16	0°♏	
asc. node	4945 Aug 14 01:03	11°♏37'42			4950 Dec 23 17:45	0°♏	
	4945 Sep 08 18:33	0°♏			4951 Feb 01 00:37	0°♏	
	4945 Oct 23 19:17	0°♏			4951 Mar 11 10:38	0°♏	
	4945 Dec 15 13:46	0°♏		asc. node	4951 Apr 05 22:39	19°♏48'23	
retrograde	4946 Feb 16 09:53	18°♏27'40			4951 Apr 19 05:20	0°♏	
min. Earth dist.	4946 Mar 27 07:14	9°♏10'58	0.67088 AU		4951 May 29 06:21	0°♏	
opposition	4946 Mar 28 18:57	8°♏35'17	4°05'05	evening set	4951 Jun 19 02:36	15°♏06'56	
greatest brilliancy	4946 Mar 28 11:46	8°♏42'28	-1.3m		4951 Jul 10 03:09	0°♏	
	4946 Apr 25 11:20	30°♏♏					
direct	4946 May 08 00:36	28°♏59'44		conjunction	4951 Aug 13 23:44	23°♏56'04	1°03'41
	4946 May 21 05:32	0°♏		minimum elong	4951 Aug 13 22:40	23°♏54'15	1°03'41
	4946 Aug 07 03:51	0°♏			4951 Aug 23 00:36	0°♏	
desc. node	4946 Aug 20 16:03	7°♏19'23		max. Earth dist.	4951 Sep 07 00:50	9°♏57'54	2.60019 AU
	4946 Sep 28 06:30	0°♏		morning rise	4951 Oct 03 03:07	26°♏59'22	
	4946 Nov 13 15:10	0°♏			4951 Oct 07 19:10	0°♏	
	4946 Dec 26 09:50	0°♏			4951 Nov 24 04:05	0°♏	
evening set	4947 Feb 03 02:53	28°♏49'36			4952 Jan 12 03:37	0°♏	
	4947 Feb 04 15:48	0°♏			4952 Mar 03 23:25	0°♏	
	4947 Mar 15 07:24	0°♏		desc. node	4952 Apr 11 12:00	19°♏50'13	
max. Earth dist.	4947 Mar 27 09:22	9°♏31'25	2.36914 AU		4952 May 05 12:00	0°♏	
				retrograde	4952 Jun 17 00:53	8°♏56'48	
conjunction	4947 Apr 08 05:24	18°♏52'50	0°-51'-45	opposition	4952 Jul 21 09:47	2°♏03'50	-4°-17'-12
minimum elong	4947 Apr 08 08:37	18°♏59'12	0°51'45	greatest brilliancy	4952 Jul 23 04:37	1°♏26'54	-2.1m
	4947 Apr 22 06:42	0°♏			4952 Jul 27 09:17	30°♏♏	
	4947 May 30 11:39	0°♏		min. Earth dist.	4952 Jul 29 21:19	29°♏09'14	0.48758 AU
morning rise	4947 Jun 19 06:05	15°♏13'50		direct	4952 Aug 28 05:12	23°♏35'53	
asc. node	4947 Jul 02 01:12	24°♏56'31			4952 Sep 29 06:30	0°♏	
	4947 Jul 08 18:54	0°♏			4952 Nov 23 23:21	0°♏	
	4947 Aug 18 22:26	0°♏			4953 Jan 05 19:19	0°♏	
	4947 Oct 01 14:41	0°♏			4953 Feb 15 02:22	0°♏	
	4947 Nov 17 18:45	0°♏		asc. node	4953 Feb 20 21:54	4°♏21'46	
	4948 Jan 10 17:43	0°♏			4953 Mar 27 06:54	0°♏	
retrograde	4948 Mar 21 20:00	21°♏31'11			4953 May 07 13:33	0°♏	
opposition	4948 Apr 30 16:09	12°♏09'06	2°17'57		4953 Jun 19 12:20	0°♏	
greatest brilliancy	4948 Apr 30 22:35	12°♏02'46	-1.3m		4953 Aug 03 05:51	0°♏	
min. Earth dist.	4948 May 03 00:52	11°♏13'17	0.67195 AU	evening set	4953 Aug 06 06:14	1°♏59'03	
direct	4948 Jun 11 04:05	2°♏08'17			4953 Sep 18 10:22	0°♏	
desc. node	4948 Jul 07 14:57	5°♏57'04					
	4948 Sep 02 03:56	0°♏		conjunction	4953 Sep 23 16:23	3°♏22'01	1°03'59
	4948 Oct 22 08:00	0°♏		minimum elong	4953 Sep 23 17:07	3°♏23'12	1°03'59
	4948 Dec 05 03:46	0°♏		max. Earth dist.	4953 Oct 01 07:17	8°♏14'29	2.66552 AU
	4949 Jan 14 15:11	0°♏			4953 Nov 04 12:02	0°♏	
	4949 Feb 22 06:34	0°♏		morning rise	4953 Nov 07 22:46	2°♏11'10	

	4953 Dec 21 21:21	0°♊		greatest brilliancy	4959 Feb 04 00:19	16°♌58'36	-1.8m
	4954 Feb 07 08:46	0°♋		opposition	4959 Feb 05 12:26	16°♌23'27	4°32'25
desc. node	4954 Feb 27 11:36	12°♋39'58		direct	4959 Mar 13 17:33	8°♌12'57	
	4954 Mar 27 04:57	0°♌			4959 May 24 14:56	0°♍	
	4954 May 15 13:17	0°♍			4959 Jul 20 01:15	0°♎	
	4954 Jul 10 19:37	0°♎			4959 Sep 08 20:56	0°♏	
retrograde	4954 Aug 29 17:44	12°♎57'30		desc. node	4959 Oct 20 07:37	25°♏54'28	
opposition	4954 Sep 28 18:06	8°♎00'24	-6°-8'-49		4959 Oct 26 16:24	0°♊	
greatest brilliancy	4954 Sep 29 16:13	7°♎45'32	-2.9m	evening set	4959 Nov 27 14:50	21°♊01'11	
min. Earth dist.	4954 Oct 01 10:57	7°♎16'52	0.37515 AU		4959 Dec 10 21:12	0°♋	
direct	4954 Oct 29 06:37	2°♎48'00		max. Earth dist.	4959 Dec 14 01:25	2°♋10'18	2.53765 AU
asc. node	4955 Jan 08 21:33	28°♎45'15					
	4955 Jan 11 00:44	0°♏		conjunction	4960 Jan 15 11:20	24°♋50'04	0°-45'-13
	4955 Feb 27 14:21	0°♐		minimum elong	4960 Jan 15 09:50	24°♋47'23	0°45'13
	4955 Apr 13 20:06	0°♑			4960 Jan 22 16:27	0°♌	
	4955 May 29 08:45	0°♌			4960 Mar 03 10:50	0°♍	
	4955 Jul 14 19:19	0°♍		morning rise	4960 Mar 08 23:16	4°♍09'26	
	4955 Aug 31 00:05	0°♎			4960 Apr 11 17:46	0°♎	
evening set	4955 Sep 14 19:25	9°♎21'51			4960 May 20 06:16	0°♏	
	4955 Oct 17 09:16	0°♏			4960 Jun 27 20:25	0°♐	
max. Earth dist.	4955 Oct 24 00:10	4°♏12'33	2.67630 AU		4960 Aug 06 11:53	0°♑	
				asc. node	4960 Aug 30 19:24	17°♑40'03	
conjunction	4955 Oct 30 04:13	8°♏08'12	0°38'52		4960 Sep 17 10:07	0°♌	
minimum elong	4955 Oct 30 05:12	8°♏09'47	0°38'51		4960 Nov 02 19:57	0°♍	
	4955 Dec 03 06:29	0°♊			4961 Jan 03 19:56	0°♎	
morning rise	4955 Dec 13 03:45	6°♊24'00		retrograde	4961 Feb 03 00:32	5°♎13'52	
desc. node	4956 Jan 15 10:45	28°♊11'59			4961 Mar 02 23:53	30°♏♍	
	4956 Jan 18 04:03	0°♋		min. Earth dist.	4961 Mar 12 06:25	26°♏28'30	0.65220 AU
	4956 Mar 02 21:20	0°♌		opposition	4961 Mar 15 06:37	25°♏16'21	4°30'31
	4956 Apr 15 11:02	0°♍		greatest brilliancy	4961 Mar 14 15:04	25°♏31'53	-1.3m
	4956 May 28 03:28	0°♎		direct	4961 Apr 23 15:15	15°♏57'54	
	4956 Jul 09 16:27	0°♏			4961 Jun 18 12:10	0°♐	
	4956 Aug 23 09:56	0°♐			4961 Aug 17 00:21	0°♑	
	4956 Oct 26 18:55	0°♑		desc. node	4961 Sep 06 06:33	11°♑43'30	
retrograde	4956 Nov 10 02:14	1°♑28'05			4961 Oct 06 04:16	0°♊	
	4956 Nov 24 07:29	30°♒♐			4961 Nov 21 00:04	0°♋	
asc. node	4956 Nov 25 20:02	29°♐40'42			4962 Jan 02 16:35	0°♌	
min. Earth dist.	4956 Dec 06 22:04	26°♐36'28	0.42794 AU	evening set	4962 Jan 11 22:01	6°♌43'57	
opposition	4956 Dec 14 23:08	23°♐57'15	1°12'46	max. Earth dist.	4962 Jan 30 16:06	20°♌39'44	2.40796 AU
greatest brilliancy	4956 Dec 14 08:29	24°♐09'22	-2.6m		4962 Feb 12 00:22	0°♍	
direct	4957 Jan 15 11:27	17°♐48'44					
	4957 Mar 05 00:33	0°♑		conjunction	4962 Mar 11 10:49	21°♍08'41	-1°-4'-14
	4957 May 02 05:03	0°♌		minimum elong	4962 Mar 11 11:45	21°♍10'31	1°04'15
	4957 Jun 22 07:04	0°♍			4962 Mar 22 18:44	0°♎	
	4957 Aug 10 17:36	0°♎			4962 Apr 29 20:19	0°♏	
	4957 Sep 28 02:31	0°♏		morning rise	4962 May 19 12:55	15°♏30'26	
evening set	4957 Oct 20 07:03	14°♏02'21			4962 Jun 07 02:18	0°♐	
	4957 Nov 14 02:24	0°♊			4962 Jul 16 09:36	0°♑	
max. Earth dist.	4957 Nov 15 18:59	1°♊05'57	2.63256 AU	asc. node	4962 Jul 18 17:38	1°♑44'38	
desc. node	4957 Dec 02 09:12	11°♊58'20			4962 Aug 26 14:07	0°♌	
					4962 Oct 09 12:56	0°♍	
conjunction	4957 Dec 04 15:39	13°♊28'14	0°-1'-15		4962 Nov 26 20:43	0°♎	
minimum elong	4957 Dec 04 15:37	13°♊28'11	0°01'16		4963 Jan 26 09:01	0°♏	
behind sun begin	4957 Dec 03 20:37	12°♊56'48		retrograde	4963 Mar 09 06:53	8°♏54'33	
behind sun end	4957 Dec 05 10:37	13°♊59'35			4963 Apr 16 16:47	30°♒♐	
	4957 Dec 29 08:45	0°♋		opposition	4963 Apr 18 11:10	29°♐18'02	3°06'02
morning rise	4958 Jan 19 15:28	14°♋32'46		greatest brilliancy	4963 Apr 18 14:02	29°♐15'11	-1.2m
	4958 Feb 10 18:39	0°♌		min. Earth dist.	4963 Apr 19 07:48	28°♐57'34	0.67936 AU
	4958 Mar 24 11:03	0°♍		direct	4963 May 29 14:57	19°♐23'59	
	4958 May 03 18:23	0°♎			4963 Jul 15 16:26	0°♑	
	4958 Jun 12 06:33	0°♏		desc. node	4963 Jul 25 05:33	3°♑57'01	
	4958 Jul 21 21:20	0°♐			4963 Sep 13 16:06	0°♊	
	4958 Sep 01 02:32	0°♑			4963 Oct 31 18:03	0°♋	
asc. node	4958 Oct 13 19:39	27°♑59'45			4963 Dec 14 00:27	0°♌	
	4958 Oct 17 04:58	0°♌			4964 Jan 23 08:15	0°♍	
retrograde	4958 Dec 28 13:57	26°♌02'13			4964 Mar 01 22:36	0°♎	
min. Earth dist.	4959 Jan 29 17:46	19°♌01'06	0.56108 AU	evening set	4964 Mar 15 06:56	10°♎32'13	

	4964 Apr 08 20:52	0°♄			4968 Dec 29 04:20	0°♄		
	4964 May 17 02:13	0°♂			4969 Feb 15 19:20	0°♂		
				desc. node	4969 Mar 16 02:11	17°♂01'45		
conjunction	4964 May 23 17:15	5°♂07'41	0°-8'-16		4969 Apr 07 07:08	0°♂		
minimum elong	4964 May 23 18:05	5°♂09'17	0°08'17		4969 Jun 03 17:48	0°♂		
behind sun begin	4964 May 22 16:34	4°♂20'04		retrograde	4969 Jul 28 16:26	14°♂28'36		
behind sun end	4964 May 24 19:36	5°♂58'27		opposition	4969 Aug 29 01:03	8°♂56'59	-6°-22'-43	
asc. node	4964 Jun 04 16:40	14°♂19'03		greatest brilliancy	4969 Aug 31 02:07	8°♂20'44	-2.6m	
	4964 Jun 25 11:08	0°♂		min. Earth dist.	4969 Sep 04 23:58	6°♂54'29	0.40806 AU	
max. Earth dist.	4964 Jul 14 17:40	14°♂13'29	2.42922 AU	direct	4969 Oct 01 11:19	2°♂30'05		
morning rise	4964 Jul 29 08:21	24°♂47'15			4969 Dec 13 07:08	0°♂		
	4964 Aug 05 15:50	0°♂		asc. node	4970 Jan 25 13:18	28°♂30'59		
	4964 Sep 18 03:31	0°♂			4970 Jan 27 16:44	0°♂		
	4964 Nov 03 08:14	0°♂			4970 Mar 11 10:54	0°♂		
	4964 Dec 23 07:05	0°♂			4970 Apr 23 10:20	0°♂		
	4965 Feb 20 20:51	0°♂			4970 Jun 06 14:43	0°♂		
retrograde	4965 Apr 13 10:29	12°♂23'26			4970 Jul 22 04:59	0°♂		
opposition	4965 May 22 08:00	3°♂31'02	0°44'08	evening set	4970 Aug 31 02:28	25°♂39'12		
greatest brilliancy	4965 May 22 12:34	3°♂26'37	-1.4m		4970 Sep 06 21:59	0°♂		
min. Earth dist.	4965 May 26 23:30	1°♂43'11	0.64038 AU	max. Earth dist.	4970 Oct 15 05:15	24°♂21'10	2.67865 AU	
	4965 May 31 12:53	30°♂						
desc. node	4965 Jun 11 04:07	26°♂31'37		conjunction	4970 Oct 16 06:23	25°♂01'05	0°50'50	
direct	4965 Jul 02 19:29	23°♂29'42		minimum elong	4970 Oct 16 07:27	25°♂02'47	0°50'49	
	4965 Aug 06 12:21	0°♂			4970 Oct 24 02:35	0°♂		
	4965 Oct 06 10:16	0°♂		morning rise	4970 Nov 29 09:11	23°♂07'27		
	4965 Nov 21 06:42	0°♂			4970 Dec 10 02:37	0°♂		
	4966 Jan 01 10:09	0°♂			4971 Jan 25 11:33	0°♂		
	4966 Feb 09 08:18	0°♂		desc. node	4971 Feb 01 01:02	4°♂17'13		
	4966 Mar 19 12:19	0°♂			4971 Mar 12 02:08	0°♂		
asc. node	4966 Apr 22 16:15	26°♂38'26			4971 Apr 26 01:38	0°♂		
	4966 Apr 27 00:55	0°♂			4971 Jun 09 22:00	0°♂		
evening set	4966 May 26 08:37	22°♂14'34			4971 Jul 26 10:07	0°♂		
	4966 Jun 05 19:06	0°♂			4971 Sep 26 09:38	0°♂		
	4966 Jul 17 09:08	0°♂		retrograde	4971 Oct 17 02:34	2°♂52'36		
					4971 Nov 06 21:38	30°♂		
conjunction	4966 Jul 25 17:50	5°♂51'38	0°53'16	min. Earth dist.	4971 Nov 12 15:38	28°♂26'47	0.38559 AU	
minimum elong	4966 Jul 25 15:53	5°♂48'13	0°53'15	opposition	4971 Nov 18 04:23	26°♂50'32	-1°-47'-21	
max. Earth dist.	4966 Aug 26 13:43	27°♂39'40	2.56005 AU	greatest brilliancy	4971 Nov 17 17:37	26°♂58'23	-2.8m	
	4966 Aug 30 01:15	0°♂		asc. node	4971 Dec 13 13:56	21°♂44'26		
morning rise	4966 Sep 17 04:54	12°♂03'49		direct	4971 Dec 18 01:37	21°♂36'23		
	4966 Oct 14 18:56	0°♂			4972 Jan 25 10:40	0°♂		
	4966 Dec 01 12:08	0°♂			4972 Mar 24 07:49	0°♂		
	4967 Jan 20 17:11	0°♂			4972 May 13 04:29	0°♂		
desc. node	4967 Mar 17 18:48	0°♂			4972 Jun 30 18:04	0°♂		
retrograde	4967 Apr 29 03:22	16°♂37'40			4972 Aug 18 01:55	0°♂		
opposition	4967 May 27 12:24	20°♂53'47			4972 Oct 04 23:09	0°♂		
greatest brilliancy	4967 Jul 02 13:14	13°♂17'29	-2°-41'-17	evening set	4972 Oct 06 04:40	0°♂46'38		
min. Earth dist.	4967 Jul 03 15:18	12°♂53'49	-1.9m	max. Earth dist.	4972 Nov 06 08:41	20°♂38'14	2.65598 AU	
	4967 Jul 10 10:34	10°♂25'48	0.53944 AU					
direct	4967 Aug 11 03:04	4°♂01'48		conjunction	4972 Nov 20 05:01	29°♂34'48	0°15'29	
	4967 Oct 22 22:47	0°♂		minimum elong	4972 Nov 20 05:30	29°♂35'34	0°15'29	
	4967 Dec 07 14:57	0°♂		behind sun begin	4972 Nov 20 00:37	29°♂27'40		
	4968 Jan 17 06:34	0°♂		behind sun end	4972 Nov 20 10:23	29°♂43'29		
	4968 Feb 25 11:58	0°♂			4972 Nov 20 20:34	0°♂		
asc. node	4968 Mar 09 14:02	10°♂01'11		desc. node	4972 Dec 18 23:32	18°♂26'20		
	4968 Apr 04 22:23	0°♂		morning rise	4973 Jan 03 22:44	29°♂05'10		
	4968 May 15 13:52	0°♂			4973 Jan 05 07:23	0°♂		
	4968 Jun 26 23:53	0°♂			4973 Feb 18 03:06	0°♂		
evening set	4968 Jul 19 17:59	15°♂33'30			4973 Apr 01 09:25	0°♂		
	4968 Aug 10 07:26	0°♂			4973 May 12 08:52	0°♂		
					4973 Jun 21 14:57	0°♂		
conjunction	4968 Sep 08 10:24	19°♂07'05	1°07'38		4973 Aug 01 04:44	0°♂		
minimum elong	4968 Sep 08 10:38	19°♂07'28	1°07'38		4973 Sep 13 07:32	0°♂		
max. Earth dist.	4968 Sep 22 01:12	27°♂55'49	2.64642 AU	asc. node	4973 Oct 30 12:46	26°♂51'06		
	4968 Sep 25 06:18	0°♂			4973 Nov 06 23:09	0°♂		
morning rise	4968 Oct 25 02:03	19°♂03'45		retrograde	4973 Dec 11 15:09	7°♂33'41		
	4968 Nov 11 08:32	0°♂		min. Earth dist.	4974 Jan 10 11:46	1°♂23'56	0.51069 AU	

	4974 Jan 14 06:36	30° $\text{R}\mathfrak{E}$		conjunction	4979 Apr 25 01:27	6° $\text{R}01'49$	0°-38'-17
greatest brilliancy	4974 Jan 16 20:30	29° $\mathfrak{E}01'55$	-2.0m	minimum elong	4979 Apr 25 04:46	6° $\text{R}08'22$	0°38'16
opposition	4974 Jan 18 10:20	28° $\mathfrak{E}26'28$	3°51'05		4979 May 25 15:06	0° II	
direct	4974 Feb 21 23:44	20° $\mathfrak{E}56'28$		max. Earth dist.	4979 Jun 05 11:48	8° $\text{II}24'15$	2.37868 AU
	4974 Apr 04 19:39	0° \mathfrak{Q}		asc. node	4979 Jun 22 09:05	21° $\text{II}18'17$	
	4974 Jun 06 03:07	0° \mathfrak{M}			4979 Jul 03 22:12	0° \mathfrak{E}	
	4974 Jul 28 15:06	0° \mathfrak{A}		morning rise	4979 Jul 05 05:30	0° $\mathfrak{E}58'30$	
	4974 Sep 16 05:18	0° \mathfrak{M}			4979 Aug 14 01:06	0° \mathfrak{Q}	
	4974 Nov 02 14:56	0° \mathfrak{X}			4979 Sep 26 13:56	0° \mathfrak{M}	
desc. node	4974 Nov 05 22:02	2° $\mathfrak{X}08'18$			4979 Nov 12 06:06	0° \mathfrak{A}	
evening set	4974 Nov 12 04:06	6° $\mathfrak{X}13'00$			4980 Jan 03 04:34	0° \mathfrak{M}	
max. Earth dist.	4974 Dec 02 01:33	19° $\mathfrak{X}22'41$	2.58042 AU	retrograde	4980 Mar 29 19:50	29° $\mathfrak{M}16'42$	
	4974 Dec 17 19:23	0° \mathfrak{E}		opposition	4980 May 08 09:06	20° $\mathfrak{M}04'05$	1°45'56
				greatest brilliancy	4980 May 08 16:02	19° $\mathfrak{M}57'17$	-1.3m
conjunction	4974 Dec 29 03:14	7° $\mathfrak{E}45'43$	0°-28'-51	min. Earth dist.	4980 May 11 13:33	18° $\mathfrak{M}49'12$	0.66357 AU
minimum elong	4974 Dec 29 02:13	7° $\mathfrak{E}43'57$	0°28'50	direct	4980 Jun 18 22:25	10° $\mathfrak{M}01'21$	
	4975 Jan 29 19:18	0° \mathfrak{A}		desc. node	4980 Jun 27 19:21	10° $\mathfrak{M}29'52$	
morning rise	4975 Feb 16 18:00	12° $\mathfrak{A}57'10$			4980 Aug 25 01:40	0° \mathfrak{X}	
	4975 Mar 11 21:01	0° \mathfrak{H}			4980 Oct 16 12:16	0° \mathfrak{E}	
	4975 Apr 20 11:41	0° \mathfrak{Y}			4980 Nov 29 22:03	0° \mathfrak{A}	
	4975 May 29 07:11	0° \mathfrak{X}			4981 Jan 09 14:25	0° \mathfrak{H}	
	4975 Jul 07 03:42	0° II			4981 Feb 17 07:34	0° \mathfrak{Y}	
	4975 Aug 16 03:19	0° \mathfrak{E}			4981 Mar 27 07:49	0° \mathfrak{X}	
asc. node	4975 Sep 17 10:56	22° $\mathfrak{E}57'34$		evening set	4981 Apr 29 13:10	26° $\text{R}01'51$	
	4975 Sep 27 20:30	0° \mathfrak{Q}			4981 May 04 16:12	0° II	
	4975 Nov 16 04:36	0° \mathfrak{M}		asc. node	4981 May 09 07:36	3° $\text{II}34'51$	
retrograde	4976 Jan 21 04:12	21° $\mathfrak{M}12'25$			4981 Jun 13 05:19	0° \mathfrak{E}	
min. Earth dist.	4976 Feb 25 14:20	13° $\mathfrak{M}02'56$	0.62388 AU				
greatest brilliancy	4976 Feb 29 02:11	11° $\mathfrak{M}39'31$	-1.5m	conjunction	4981 Jul 03 20:53	15° $\mathfrak{E}09'26$	0°35'17
opposition	4976 Mar 01 02:35	11° $\mathfrak{M}15'10$	4°44'26	minimum elong	4981 Jul 03 18:40	15° $\mathfrak{E}05'25$	0°35'15
direct	4976 Apr 08 09:29	2° $\mathfrak{M}18'29$			4981 Jul 24 14:16	0° \mathfrak{Q}	
	4976 Jul 02 05:53	0° \mathfrak{A}		max. Earth dist.	4981 Aug 13 06:33	13° $\mathfrak{Q}45'18$	2.51292 AU
	4976 Aug 25 16:54	0° \mathfrak{M}		morning rise	4981 Aug 30 17:37	25° $\mathfrak{Q}41'34$	
desc. node	4976 Sep 22 20:48	16° $\mathfrak{M}57'30$			4981 Sep 06 02:53	0° \mathfrak{M}	
	4976 Oct 13 16:04	0° \mathfrak{X}			4981 Oct 21 21:55	0° \mathfrak{A}	
	4976 Nov 28 04:07	0° \mathfrak{E}			4981 Dec 09 04:16	0° \mathfrak{M}	
evening set	4976 Dec 23 09:25	17° $\mathfrak{E}30'19$			4982 Jan 30 08:13	0° \mathfrak{X}	
max. Earth dist.	4977 Jan 06 11:25	27° $\mathfrak{E}33'08$	2.46016 AU		4982 Apr 07 17:33	0° \mathfrak{E}	
	4977 Jan 09 20:50	0° \mathfrak{A}		retrograde	4982 May 08 20:24	5° $\mathfrak{E}02'28$	
				desc. node	4982 May 15 17:31	4° $\mathfrak{E}45'00$	
conjunction	4977 Feb 15 04:19	26° $\mathfrak{A}51'05$	-1°-3'-21		4982 Jun 06 10:38	30° $\text{R}\mathfrak{X}$	
minimum elong	4977 Feb 15 03:20	26° $\mathfrak{A}49'13$	1°03'22	opposition	4982 Jun 15 05:51	26° $\mathfrak{X}50'59$	-1°-13'-25
	4977 Feb 19 08:14	0° \mathfrak{H}		greatest brilliancy	4982 Jun 15 16:13	26° $\mathfrak{X}41'16$	-1.6m
	4977 Mar 30 06:48	0° \mathfrak{Y}		min. Earth dist.	4982 Jun 22 00:16	24° $\mathfrak{X}18'32$	0.58589 AU
morning rise	4977 Apr 18 20:54	15° $\mathfrak{Y}20'56$		direct	4982 Jul 25 22:15	17° $\mathfrak{X}07'15$	
	4977 May 07 11:46	0° \mathfrak{X}			4982 Sep 13 07:46	0° \mathfrak{E}	
greatest brilliancy	4977 May 15 03:54	6° $\text{R}02'05$	1.2m		4982 Nov 05 01:08	0° \mathfrak{A}	
	4977 Jun 14 19:43	0° II			4982 Dec 17 22:21	0° \mathfrak{H}	
	4977 Jul 24 04:08	0° \mathfrak{E}			4983 Jan 26 13:56	0° \mathfrak{Y}	
asc. node	4977 Aug 04 10:46	8° $\mathfrak{E}21'41$			4983 Mar 06 05:02	0° \mathfrak{X}	
	4977 Sep 03 11:39	0° \mathfrak{Q}		asc. node	4983 Mar 27 07:31	16° $\text{R}20'23$	
	4977 Oct 17 22:41	0° \mathfrak{M}			4983 Apr 14 03:42	0° II	
	4977 Dec 07 08:59	0° \mathfrak{A}			4983 May 24 08:06	0° \mathfrak{E}	
retrograde	4978 Feb 24 00:29	26° $\mathfrak{A}17'04$		evening set	4983 Jul 01 06:42	27° $\mathfrak{E}09'52$	
opposition	4978 Apr 05 08:50	16° $\mathfrak{A}29'17$	3°45'54		4983 Jul 05 08:03	0° \mathfrak{Q}	
greatest brilliancy	4978 Apr 05 05:45	16° $\mathfrak{A}32'21$	-1.2m		4983 Aug 18 07:41	0° \mathfrak{M}	
min. Earth dist.	4978 Apr 04 17:22	16° $\mathfrak{A}44'42$	0.67666 AU				
direct	4978 May 15 23:29	6° $\mathfrak{A}45'58$		conjunction	4983 Aug 24 01:26	3° $\mathfrak{M}49'16$	1°06'43
	4978 Jul 30 16:19	0° \mathfrak{M}		minimum elong	4983 Aug 24 00:53	3° $\mathfrak{M}48'22$	1°06'44
desc. node	4978 Aug 10 20:28	5° $\mathfrak{M}40'59$		max. Earth dist.	4983 Sep 13 03:49	17° $\mathfrak{M}03'28$	2.61894 AU
	4978 Sep 22 17:22	0° \mathfrak{X}			4983 Oct 03 02:42	0° \mathfrak{A}	
	4978 Nov 08 14:56	0° \mathfrak{E}		morning rise	4983 Oct 11 17:48	5° $\mathfrak{A}32'42$	
	4978 Dec 21 13:37	0° \mathfrak{A}			4983 Nov 19 07:54	0° \mathfrak{M}	
	4979 Jan 30 20:24	0° \mathfrak{H}			4984 Jan 06 19:02	0° \mathfrak{X}	
evening set	4979 Feb 17 03:55	13° $\mathfrak{H}19'56$			4984 Feb 26 03:18	0° \mathfrak{E}	
	4979 Mar 10 11:31	0° \mathfrak{Y}		desc. node	4984 Apr 01 16:30	19° $\mathfrak{E}46'49$	
	4979 Apr 17 10:20	0° \mathfrak{X}			4984 Apr 21 19:35	0° \mathfrak{A}	

retrograde	4984 Jun 30 18:19	20° \approx 57'23		evening set	4989 Oct 28 11:37	22° \approx 15'43	
opposition	4984 Aug 03 03:23	14° \approx 32'11	-5°-10'-56		4989 Nov 09 11:13	0° \approx	
greatest brilliancy	4984 Aug 05 04:58	13° \approx 51'12	-2.3m	max. Earth dist.	4989 Nov 21 13:02	7° \approx 52'49	2.61595 AU
min. Earth dist.	4984 Aug 11 13:14	11° \approx 46'51	0.45794 AU	desc. node	4989 Nov 22 13:05	8° \approx 32'17	
direct	4984 Sep 08 13:37	6° \approx 41'46					
	4984 Nov 13 16:07	0° \approx		conjunction	4989 Dec 13 06:25	22° \approx 17'19	0°-11'-23
	4984 Dec 29 07:55	0° \approx		minimum elong	4989 Dec 13 06:01	22° \approx 16'38	0°11'24
	4985 Feb 08 16:21	0° \approx		behind sun begin	4989 Dec 12 16:03	21° \approx 53'14	
asc. node	4985 Feb 11 06:51	1° \approx 55'04		behind sun end	4989 Dec 13 20:00	22° \approx 40'03	
	4985 Mar 21 12:01	0° \approx			4989 Dec 24 17:00	0° \approx	
	4985 May 02 05:15	0° \approx		morning rise	4990 Jan 29 07:04	24° \approx 34'45	
	4985 Jun 14 11:59	0° \approx			4990 Feb 05 23:16	0° \approx	
	4985 Jul 29 11:02	0° \approx			4990 Mar 19 10:20	0° \approx	
evening set	4985 Aug 15 14:19	11° \approx 10'54			4990 Apr 28 11:19	0° \approx	
	4985 Sep 13 18:49	0° \approx			4990 Jun 06 16:44	0° \approx	
					4990 Jul 15 23:27	0° \approx	
conjunction	4985 Oct 02 01:31	11° \approx 40'57	1°00'04		4990 Aug 25 13:56	0° \approx	
minimum elong	4985 Oct 02 02:27	11° \approx 42'27	1°00'04	asc. node	4990 Oct 04 04:19	27° \approx 01'21	
max. Earth dist.	4985 Oct 06 13:35	14° \approx 33'06	2.67244 AU		4990 Oct 08 20:52	0° \approx	
	4985 Oct 30 20:39	0° \approx			4990 Dec 06 05:37	0° \approx	
morning rise	4985 Nov 15 18:48	10° \approx 06'39		retrograde	4991 Jan 06 11:53	5° \approx 56'07	
	4985 Dec 17 01:53	0° \approx			4991 Feb 04 20:23	30° \approx 00	
	4986 Feb 02 02:21	0° \approx		min. Earth dist.	4991 Feb 08 20:50	28° \approx 28'41	0.58583 AU
desc. node	4986 Feb 17 15:35	9° \approx 57'16		greatest brilliancy	4991 Feb 13 11:46	26° \approx 39'46	-1.6m
	4986 Mar 20 23:10	0° \approx		opposition	4991 Feb 14 20:26	26° \approx 07'34	4°43'01
	4986 May 07 05:20	0° \approx		direct	4991 Mar 23 20:20	17° \approx 38'43	
	4986 Jun 25 17:19	0° \approx			4991 May 14 00:28	0° \approx	
	4986 Sep 03 23:10	0° \approx			4991 Jul 13 20:24	0° \approx	
retrograde	4986 Sep 17 03:00	1° \approx 06'46			4991 Sep 03 17:11	0° \approx	
	4986 Sep 30 08:19	30° \approx 00		desc. node	4991 Oct 10 12:04	22° \approx 43'34	
opposition	4986 Oct 17 05:48	26° \approx 05'41	-4°-59'-53		4991 Oct 21 21:47	0° \approx	
greatest brilliancy	4986 Oct 17 08:00	26° \approx 04'14	-2.9m	evening set	4991 Dec 06 20:56	0° \approx 26'20	
min. Earth dist.	4986 Oct 16 17:26	26° \approx 13'52	0.36939 AU		4991 Dec 06 05:30	0° \approx	
direct	4986 Nov 15 17:00	21° \approx 11'45		max. Earth dist.	4991 Dec 21 19:57	10° \approx 45'06	2.51124 AU
	4986 Dec 24 09:41	0° \approx			4992 Jan 18 00:05	0° \approx	
asc. node	4986 Dec 30 05:36	2° \approx 29'48					
	4987 Feb 18 12:33	0° \approx		conjunction	4992 Jan 26 04:30	5° \approx 55'31	0°-53'-23
	4987 Apr 07 01:16	0° \approx		minimum elong	4992 Jan 26 02:55	5° \approx 52'39	0°53'23
	4987 May 23 15:48	0° \approx			4992 Feb 27 16:08	0° \approx	
	4987 Jul 09 16:39	0° \approx		morning rise	4992 Mar 22 13:37	18° \approx 12'16	
	4987 Aug 26 05:27	0° \approx			4992 Apr 06 19:52	0° \approx	
evening set	4987 Sep 23 00:47	17° \approx 31'24			4992 May 15 05:08	0° \approx	
	4987 Oct 12 18:08	0° \approx			4992 Jun 22 16:20	0° \approx	
max. Earth dist.	4987 Oct 29 05:15	10° \approx 28'11	2.67129 AU		4992 Aug 01 03:55	0° \approx	
				asc. node	4992 Aug 21 02:13	14° \approx 37'12	
conjunction	4987 Nov 07 03:50	16° \approx 11'00	0°30'46		4992 Sep 11 18:14	0° \approx	
minimum elong	4987 Nov 07 04:41	16° \approx 12'22	0°30'46		4992 Oct 27 03:59	0° \approx	
	4987 Nov 28 15:05	0° \approx			4992 Dec 21 04:00	0° \approx	
morning rise	4987 Dec 21 06:26	14° \approx 44'42		retrograde	4993 Feb 10 18:17	13° \approx 21'57	
desc. node	4988 Jan 05 14:05	24° \approx 50'24		min. Earth dist.	4993 Mar 20 22:17	4° \approx 18'34	0.66382 AU
	4988 Jan 13 08:37	0° \approx		opposition	4993 Mar 23 02:09	3° \approx 26'41	4°17'01
	4988 Feb 26 17:33	0° \approx		greatest brilliancy	4993 Mar 22 15:23	3° \approx 37'27	-1.3m
	4988 Apr 09 18:46	0° \approx			4993 Mar 31 23:23	30° \approx 00	
	4988 May 21 17:38	0° \approx		direct	4993 May 01 22:38	23° \approx 58'16	
	4988 Jul 02 04:51	0° \approx			4993 Jun 05 08:54	0° \approx	
	4988 Aug 13 16:27	0° \approx			4993 Aug 10 16:18	0° \approx	
	4988 Oct 01 06:43	0° \approx		desc. node	4993 Aug 27 10:56	9° \approx 22'23	
asc. node	4988 Nov 16 05:20	15° \approx 39'07			4993 Sep 30 23:01	0° \approx	
retrograde	4988 Nov 22 08:59	15° \approx 55'39			4993 Nov 16 03:40	0° \approx	
min. Earth dist.	4988 Dec 20 01:14	10° \approx 39'06	0.45661 AU		4993 Dec 28 22:44	0° \approx	
greatest brilliancy	4988 Dec 27 07:13	8° \approx 08'03	-2.4m	evening set	4994 Jan 24 01:11	19° \approx 14'48	
opposition	4988 Dec 28 11:31	7° \approx 43'20	2°27'02		4994 Feb 07 06:38	0° \approx	
direct	4989 Jan 30 02:50	1° \approx 03'49		max. Earth dist.	4994 Feb 20 21:41	10° \approx 27'11	2.38272 AU
	4989 Apr 23 19:50	0° \approx			4994 Mar 17 23:55	0° \approx	
	4989 Jun 16 06:32	0° \approx					
	4989 Aug 05 14:03	0° \approx		conjunction	4994 Mar 26 15:42	6° \approx 48'35	0°-58'-59
	4989 Sep 23 08:05	0° \approx		minimum elong	4994 Mar 26 18:05	6° \approx 53'16	0°58'59

	4994 Apr 25 00:10	0°♄		retrograde	4999 Jun 08 06:25	1°≈16'28	
	4994 Jun 02 05:01	0°♂			4999 Jun 22 10:45	30°♄	
morning rise	4994 Jun 06 01:47	3°♂00'02		opposition	4999 Jul 13 10:10	24°♄02'48	-3°-35'-34
asc. node	4994 Jul 09 02:05	28°♂13'03		greatest brilliancy	4999 Jul 14 22:00	23°♄31'03	-2.0m
	4994 Jul 11 11:06	0°♄		min. Earth dist.	4999 Jul 21 17:03	21°♄07'13	0.51141 AU
	4994 Aug 21 13:22	0°♂		direct	4999 Aug 21 02:11	15°♄10'29	
	4994 Oct 04 06:10	0°♄			4999 Oct 11 18:15	0°≈	
	4994 Nov 20 17:51	0°♂			4999 Nov 30 07:04	0°♄	
	4995 Jan 15 11:34	0°♂			5000 Jan 11 00:04	0°♄	
retrograde	4995 Mar 17 00:35	16°♂36'41			5000 Feb 19 17:43	0°♄	
opposition	4995 Apr 26 00:38	7°♂07'43	2°38'51	asc. node	5000 Feb 28 22:55	6°♄59'22	
greatest brilliancy	4995 Apr 26 05:48	7°♂02'37	-1.2m		5000 Mar 31 12:35	0°♂	
min. Earth dist.	4995 Apr 27 17:18	6°♂27'31	0.67658 AU		5000 May 11 10:46	0°♄	
	4995 May 16 06:36	30°♄			5000 Jun 23 02:13	0°♂	
direct	4995 Jun 06 09:10	27°♂09'17		evening set	5000 Jul 30 22:09	25°♂34'57	
	4995 Jun 29 02:28	0°♂			5000 Aug 06 13:56	0°♄	
desc. node	4995 Jul 15 09:45	4°♂49'58					
	4995 Sep 07 01:39	0°♄		conjunction	5000 Sep 18 06:24	27°♄50'23	1°05'59
	4995 Oct 26 08:12	0°♄		minimum elong	5000 Sep 18 06:58	27°♄51'17	1°06'00
	4995 Dec 08 23:20	0°≈			5000 Sep 21 14:59	0°♂	
	4996 Jan 18 10:17	0°♄		max. Earth dist.	5000 Sep 28 12:20	4°♂25'27	2.65803 AU
	4996 Feb 26 01:41	0°♄		morning rise	5000 Nov 03 01:51	27°♂05'16	
evening set	4996 Mar 31 11:51	27°♄12'45			5000 Nov 07 16:08	0°♂	
	4996 Apr 04 00:26	0°♄			5000 Dec 25 05:28	0°♄	
	4996 May 12 06:24	0°♂			5001 Feb 11 03:34	0°♄	
asc. node	4996 May 26 01:41	10°♂38'32		desc. node	5001 Mar 07 06:14	14°♄55'55	
					5001 Mar 31 22:51	0°≈	
conjunction	4996 Jun 08 11:09	20°♂50'13	0°09'10		5001 May 22 16:51	0°♄	
minimum elong	4996 Jun 08 10:18	20°♂48'37	0°09'08		5001 Aug 08 15:43	0°♄	
behind sun begin	4996 Jun 07 10:45	20°♂04'06		retrograde	5001 Aug 16 10:00	0°♄22'28	
behind sun end	4996 Jun 09 09:51	21°♂33'05			5001 Aug 24 01:31	30°♄	
	4996 Jun 20 15:55	0°♄		opposition	5001 Sep 15 19:13	25°♄14'43	-6°-29'-59
max. Earth dist.	4996 Jul 27 05:46	26°♄42'22	2.45958 AU	greatest brilliancy	5001 Sep 17 08:28	24°♄48'47	-2.8m
	4996 Jul 31 20:50	0°♂		min. Earth dist.	5001 Sep 20 17:36	23°♄52'31	0.38688 AU
morning rise	4996 Aug 10 21:21	7°♂04'01		direct	5001 Oct 17 13:12	19°♄33'18	
	4996 Sep 13 07:20	0°♄			5001 Nov 28 01:00	0°♄	
	4996 Oct 29 06:14	0°♂		asc. node	5002 Jan 16 22:46	28°♄16'41	
	4996 Dec 17 09:20	0°♂			5002 Jan 19 14:55	0°♄	
	4997 Feb 11 00:58	0°♄			5002 Mar 05 10:25	0°♂	
retrograde	4997 Apr 22 06:11	20°♄39'05			5002 Apr 18 11:18	0°♄	
opposition	4997 May 30 16:25	11°♄59'41	0°03'48		5002 Jun 02 06:53	0°♂	
greatest brilliancy	4997 Jan 21 18:08	19°♄45'55	-2.7m		5002 Jul 18 06:50	0°♄	
desc. node	4997 Jun 01 08:08	11°♄21'31			5002 Sep 03 05:32	0°♂	
min. Earth dist.	4997 Jun 05 02:43	9°♄54'37	0.62356 AU	evening set	5002 Sep 09 13:52	4°♂01'47	
direct	4997 Jul 10 23:21	2°♄01'46			5002 Oct 20 12:21	0°♂	
	4997 Sep 28 23:30	0°♄		max. Earth dist.	5002 Oct 21 08:13	0°♂31'34	2.67838 AU
	4997 Nov 15 09:08	0°≈					
	4997 Dec 27 00:14	0°♄		conjunction	5002 Oct 25 05:52	3°♄00'21	0°44'07
	4998 Feb 04 03:21	0°♄		minimum elong	5002 Oct 25 06:55	3°♄02'01	0°44'08
	4998 Mar 14 10:19	0°♄			5002 Dec 06 11:02	0°♄	
asc. node	4998 Apr 12 23:55	23°♄01'21		morning rise	5002 Dec 08 05:29	1°♄08'23	
	4998 Apr 22 01:34	0°♂			5003 Jan 21 13:48	0°♄	
	4998 May 31 22:20	0°♄		desc. node	5003 Jan 23 05:23	1°♄05'06	
evening set	4998 Jun 09 04:08	6°♄02'49			5003 Mar 07 16:15	0°≈	
	4998 Jul 12 14:44	0°♂			5003 Apr 20 19:45	0°♄	
					5003 Jun 03 07:24	0°♄	
conjunction	4998 Aug 05 22:58	16°♂52'19	1°00'08		5003 Jul 17 02:54	0°♄	
minimum elong	4998 Aug 05 21:30	16°♂49'47	1°00'06		5003 Sep 02 23:55	0°♂	
	4998 Aug 25 08:25	0°♄		retrograde	5003 Nov 01 18:24	20°♂01'39	
max. Earth dist.	4998 Sep 02 08:00	5°♄19'52	2.58316 AU	min. Earth dist.	5003 Nov 28 04:36	15°♂26'16	0.40685 AU
morning rise	4998 Sep 26 10:52	21°♄11'56		asc. node	5003 Dec 04 21:06	13°♂20'51	
	4998 Oct 10 01:13	0°♂		opposition	5003 Dec 05 11:11	13°♂09'48	0°02'22
	4998 Nov 26 12:13	0°♂		greatest brilliancy	5004 Sep 27 01:37	27°♂20'33	-6.2m
	4999 Jan 14 22:02	0°♄		direct	5004 Jan 05 03:34	7°♂26'56	
	4999 Mar 09 03:11	0°♄			5004 Mar 14 23:10	0°♄	
desc. node	4999 Apr 19 06:41	19°♄30'13			5004 May 07 09:36	0°♂	
	4999 May 24 07:41	0°≈			5004 Jun 26 05:30	0°♄	

	5004 Aug 14 03:21	0°♄			5009 Jun 10 20:24	0°♄		
	5004 Oct 01 07:01	0°♄			5009 Jul 20 03:13	0°♄		
evening set	5004 Oct 15 05:56	8°♄49'07		asc. node	5009 Jul 26 18:49	4°♄57'32		
max. Earth dist.	5004 Nov 12 19:20	27°♄06'29	2.64410 AU		5009 Aug 30 07:13	0°♄		
	5004 Nov 17 06:27	0°♄			5009 Oct 13 08:31	0°♄		
					5009 Dec 01 06:29	0°♄		
conjunction	5004 Nov 29 09:18	7°♄54'07	0°05'54		5010 Feb 05 15:49	0°♄		
minimum elong	5004 Nov 29 09:29	7°♄54'24	0°05'55	retrograde	5010 Mar 04 15:29	4°♄02'27		
behind sun begin	5004 Nov 28 15:39	7°♄25'15			5010 Mar 29 13:34	30°♄		
behind sun end	5004 Nov 30 03:18	8°♄23'35		opposition	5010 Apr 13 21:38	24°♄20'28	3°23'33	
desc. node	5004 Dec 10 03:37	14°♄59'00		greatest brilliancy	5010 Apr 13 22:05	24°♄20'01	-1.2m	
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morning rise	5005 Jan 13 17:23	8°♄10'58		direct	5010 May 24 19:43	14°♄30'47		
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	5005 Mar 28 05:42	0°♄		desc. node	5010 Aug 02 00:05	4°♄42'13		
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	5005 Jul 26 14:19	0°♄			5010 Dec 17 16:12	0°♄		
	5005 Sep 06 09:03	0°♄			5011 Jan 27 00:39	0°♄		
asc. node	5005 Oct 21 20:15	28°♄33'25		evening set	5011 Mar 05 02:00	28°♄45'30		
	5005 Oct 24 11:52	0°♄			5011 Mar 06 15:52	0°♄		
retrograde	5005 Dec 22 13:40	18°♄52'58			5011 Apr 13 14:12	0°♄		
min. Earth dist.	5006 Jan 22 17:01	12°♄13'44	0.53935 AU					
greatest brilliancy	5006 Jan 28 10:51	10°♄02'10	-1.9m	conjunction	5011 May 12 21:42	23°♄04'59	0°-21'-45	
opposition	5006 Jan 30 00:49	9°♄25'42	4°19'31	minimum elong	5011 May 12 23:52	23°♄09'13	0°21'45	
direct	5006 Mar 06 12:39	1°♄32'03			5011 May 21 18:41	0°♄		
	5006 May 30 11:00	0°♄		asc. node	5011 Jun 13 17:12	17°♄39'13		
	5006 Jul 23 23:23	0°♄			5011 Jun 30 01:44	0°♄		
	5006 Sep 12 06:09	0°♄		max. Earth dist.	5011 Jul 04 00:10	2°♄56'16	2.40499 AU	
desc. node	5006 Oct 28 02:16	28°♄49'03		morning rise	5011 Jul 20 22:00	15°♄24'25		
	5006 Oct 29 22:15	0°♄			5011 Aug 10 04:06	0°♄		
evening set	5006 Nov 21 20:41	15°♄00'31			5011 Sep 22 14:34	0°♄		
max. Earth dist.	5006 Dec 09 19:21	27°♄02'10	2.55766 AU		5011 Nov 07 21:35	0°♄		
	5006 Dec 14 04:06	0°♄			5011 Dec 28 10:51	0°♄		
					5012 Mar 01 07:00	0°♄		
conjunction	5007 Jan 08 18:23	17°♄42'00	0°-38'-32	retrograde	5012 Apr 08 02:19	7°♄12'45		
minimum elong	5007 Jan 08 17:04	17°♄39'40	0°38'32		5012 May 12 13:28	30°♄		
	5007 Jan 26 02:32	0°♄		opposition	5012 May 17 07:09	28°♄10'53	1°10'53	
morning rise	5007 Mar 01 08:06	24°♄59'51		greatest brilliancy	5012 May 17 13:15	28°♄04'57	-1.3m	
	5007 Mar 08 01:06	0°♄		min. Earth dist.	5012 May 21 06:51	26°♄37'37	0.65193 AU	
	5007 Apr 16 12:03	0°♄		desc. node	5012 Jun 18 22:39	18°♄38'43		
	5007 May 25 03:36	0°♄		direct	5012 Jun 27 19:48	18°♄08'07		
	5007 Jul 02 20:00	0°♄			5012 Aug 15 20:06	0°♄		
	5007 Aug 11 13:30	0°♄			5012 Oct 11 05:00	0°♄		
asc. node	5007 Sep 08 20:18	20°♄24'26			5012 Nov 25 10:50	0°♄		
	5007 Sep 22 16:28	0°♄			5013 Jan 05 10:22	0°♄		
	5007 Nov 08 21:45	0°♄			5013 Feb 13 06:50	0°♄		
retrograde	5008 Jan 30 05:13	29°♄50'53			5013 Mar 23 08:59	0°♄		
min. Earth dist.	5008 Mar 06 15:42	21°♄20'53	0.64073 AU	asc. node	5013 Apr 30 17:05	29°♄56'16		
opposition	5008 Mar 10 08:06	19°♄52'32	4°38'06		5013 Apr 30 19:01	0°♄		
greatest brilliancy	5008 Mar 09 12:34	20°♄12'04	-1.4m	evening set	5013 May 16 00:12	11°♄39'37		
direct	5008 Apr 18 05:21	10°♄43'15			5013 Jun 09 09:50	0°♄		
	5008 Jun 24 21:35	0°♄						
	5008 Aug 20 23:31	0°♄		conjunction	5013 Jul 17 14:53	27°♄43'26	0°46'34	
desc. node	5008 Sep 14 01:09	14°♄10'35		minimum elong	5013 Jul 17 12:42	27°♄39'32	0°46'33	
	5008 Oct 09 15:58	0°♄			5013 Jul 20 20:04	0°♄		
	5008 Nov 24 09:52	0°♄		max. Earth dist.	5013 Aug 22 06:07	22°♄28'31	2.53973 AU	
evening set	5009 Jan 04 03:52	28°♄33'34			5013 Sep 02 09:12	0°♄		
	5009 Jan 06 03:43	0°♄		morning rise	5013 Sep 10 21:45	5°♄42'15		
max. Earth dist.	5009 Jan 19 17:44	9°♄54'52	2.43093 AU		5013 Oct 18 01:49	0°♄		
	5009 Feb 15 14:05	0°♄			5013 Dec 04 22:51	0°♄		
					5014 Jan 24 19:38	0°♄		
conjunction	5009 Mar 01 10:09	10°♄34'26	-1°-5'-17		5014 Mar 24 19:43	0°♄		
minimum elong	5009 Mar 01 10:07	10°♄34'21	1°05'19	desc. node	5014 May 06 21:53	13°♄19'43		
	5009 Mar 26 10:53	0°♄		retrograde	5014 May 20 04:27	14°♄19'58		
	5009 May 03 13:58	0°♄		opposition	5014 Jun 25 20:19	6°♄26'56	-2°-2'-51	
morning rise	5009 May 06 20:46	2°♄35'17		greatest brilliancy	5014 Jun 26 15:10	6°♄09'30	-1.8m	


























































































































min. Earth dist.	5014 Jul 03 05:59	3° $\overline{3}$ 42'49	0.56106 AU		5019 Oct 09 03:03	0° \overline{M}	
	5014 Jul 14 15:10	30° \overline{R} 27		max. Earth dist.	5019 Nov 04 10:52	16° \overline{M} 44'58	2.66393 AU
direct	5014 Aug 04 23:00	26° $\overline{2}$ 56'35					
	5014 Aug 27 05:05	0° $\overline{3}$		conjunction	5019 Nov 16 04:08	24° \overline{M} 16'34	0°22'02
	5014 Oct 29 09:47	0° \approx		minimum elong	5019 Nov 16 04:47	24° \overline{M} 17'37	0°22'03
	5014 Dec 12 16:10	0° \overline{H}			5019 Nov 25 00:48	0° $\overline{2}$	
	5015 Jan 21 20:31	0° \overline{Y}		desc. node	5019 Dec 27 18:11	21° $\overline{2}$ 25'52	
	5015 Mar 01 18:46	0° \overline{B}		morning rise	5019 Dec 30 13:08	23° $\overline{2}$ 16'53	
asc. node	5015 Mar 18 15:19	12° \overline{B} 58'54			5020 Jan 09 15:07	0° $\overline{3}$	
	5015 Apr 09 22:56	0° \overline{II}			5020 Feb 22 17:15	0° \approx	
	5015 May 20 08:16	0° \overline{S}			5020 Apr 05 08:01	0° \overline{H}	
	5015 Jul 01 12:18	0° \overline{Q}			5020 May 16 17:30	0° \overline{Y}	
evening set	5015 Jul 13 14:45	8° \overline{Q} 21'35			5020 Jun 26 10:41	0° \overline{B}	
	5015 Aug 14 15:05	0° \overline{M}			5020 Aug 06 15:52	0° \overline{II}	
					5020 Sep 20 05:37	0° \overline{S}	
conjunction	5015 Sep 03 13:33	13° \overline{M} 10'22	1°07'51	asc. node	5020 Nov 07 14:01	24° \overline{S} 13'13	
minimum elong	5015 Sep 03 13:28	13° \overline{M} 10'14	1°07'51	retrograde	5020 Dec 04 16:12	29° \overline{S} 04'47	
max. Earth dist.	5015 Sep 19 22:31	23° \overline{M} 50'43	2.63520 AU	min. Earth dist.	5021 Jan 02 11:57	23° \overline{S} 18'45	0.48664 AU
	5015 Sep 29 11:03	0° \overline{A}		greatest brilliancy	5021 Jan 09 06:39	20° \overline{S} 51'25	-2.2m
morning rise	5015 Oct 21 00:43	13° \overline{A} 49'08		opposition	5021 Jan 10 18:18	20° \overline{S} 18'52	3°21'51
	5015 Nov 15 13:45	0° \overline{M}		direct	5021 Feb 13 12:07	13° \overline{S} 10'05	
	5016 Jan 02 15:18	0° $\overline{2}$			5021 Apr 14 11:13	0° \overline{Q}	
	5016 Feb 20 21:32	0° $\overline{3}$			5021 Jun 10 20:07	0° \overline{M}	
desc. node	5016 Mar 23 20:58	18° $\overline{3}$ 43'10			5021 Aug 01 07:01	0° \overline{A}	
	5016 Apr 13 02:08	0° \approx			5021 Sep 19 12:26	0° \overline{M}	
	5016 Jun 19 14:55	0° \overline{H}			5021 Nov 05 20:07	0° $\overline{2}$	
retrograde	5016 Jul 16 20:26	4° \overline{H} 06'28		evening set	5021 Nov 06 19:24	0° $\overline{2}$ 37'43	
	5016 Aug 12 02:41	30° \overline{R} 27		desc. node	5021 Nov 13 16:44	5° $\overline{2}$ 06'41	
opposition	5016 Aug 18 03:11	28° \approx 11'12	-5°-57'-17	max. Earth dist.	5021 Nov 28 13:36	14° $\overline{2}$ 53'30	2.59734 AU
greatest brilliancy	5016 Aug 20 07:30	27° \approx 30'27	-2.5m		5021 Dec 21 02:11	0° $\overline{3}$	
min. Earth dist.	5016 Aug 26 01:21	25° \approx 44'19	0.42914 AU				
direct	5016 Sep 21 23:36	21° \approx 05'20		conjunction	5021 Dec 23 03:52	1° $\overline{3}$ 24'25	0°-21'-33
	5016 Oct 29 20:42	0° \overline{H}		minimum elong	5021 Dec 23 03:07	1° $\overline{3}$ 23'07	0°21'33
	5016 Dec 21 12:37	0° \overline{Y}			5022 Feb 02 06:01	0° \approx	
asc. node	5017 Feb 02 14:07	29° \overline{Y} 57'46		morning rise	5022 Feb 09 11:22	5° \approx 09'37	
	5017 Feb 02 15:22	0° \overline{B}			5022 Mar 15 12:34	0° \overline{H}	
	5017 Mar 16 08:25	0° \overline{II}			5022 Apr 24 08:15	0° \overline{Y}	
	5017 Apr 27 15:57	0° \overline{S}			5022 Jun 02 07:55	0° \overline{B}	
	5017 Jun 10 08:44	0° \overline{Q}			5022 Jul 11 08:00	0° \overline{II}	
	5017 Jul 25 15:00	0° \overline{M}			5022 Aug 20 12:05	0° \overline{S}	
evening set	5017 Aug 25 14:08	20° \overline{M} 02'32		asc. node	5022 Sep 25 11:58	25° \overline{S} 14'48	
	5017 Sep 10 03:01	0° \overline{A}			5022 Oct 02 15:48	0° \overline{Q}	
					5022 Nov 23 03:05	0° \overline{M}	
conjunction	5017 Oct 11 06:05	19° \overline{A} 49'56	0°55'01	retrograde	5023 Jan 16 00:39	15° \overline{M} 18'41	
minimum elong	5017 Oct 11 07:07	19° \overline{A} 51'36	0°55'02	min. Earth dist.	5023 Feb 19 13:25	7° \overline{M} 27'05	0.60802 AU
max. Earth dist.	5017 Oct 12 16:57	20° \overline{A} 45'21	2.67698 AU	opposition	5023 Feb 24 17:34	5° \overline{M} 23'56	4°46'19
	5017 Oct 27 06:01	0° \overline{M}		greatest brilliancy	5023 Feb 23 13:14	5° \overline{M} 52'06	-1.5m
morning rise	5017 Nov 24 13:33	18° \overline{M} 00'43			5023 Mar 11 20:54	30° \overline{R} 27	
	5017 Dec 13 08:20	0° $\overline{2}$		direct	5023 Apr 03 10:41	26° \overline{Q} 38'59	
	5018 Jan 28 23:53	0° $\overline{3}$			5023 Apr 28 03:59	0° \overline{M}	
desc. node	5018 Feb 08 19:52	7° $\overline{3}$ 00'56			5023 Jul 08 02:20	0° \overline{A}	
	5018 Mar 16 03:01	0° \approx			5023 Aug 30 09:06	0° \overline{M}	
	5018 Apr 30 23:27	0° \overline{H}		desc. node	5023 Oct 01 15:39	19° \overline{M} 38'57	
	5018 Jun 16 08:37	0° \overline{Y}			5023 Oct 18 01:15	0° $\overline{2}$	
	5018 Aug 05 18:14	0° \overline{B}			5023 Dec 02 12:43	0° $\overline{3}$	
retrograde	5018 Oct 05 14:49	19° \overline{B} 34'10		evening set	5023 Dec 17 15:04	10° $\overline{3}$ 23'17	
min. Earth dist.	5018 Nov 02 00:36	15° \overline{B} 04'32	0.37423 AU	max. Earth dist.	5023 Dec 31 19:52	20° $\overline{3}$ 21'23	2.48351 AU
opposition	5018 Nov 05 12:53	14° \overline{B} 06'44	-3°-16'-6		5024 Jan 14 07:38	0° \approx	
greatest brilliancy	5018 Nov 05 03:05	14° \overline{B} 13'29	-2.9m				
direct	5018 Dec 04 23:33	9° \overline{B} 08'48		conjunction	5024 Feb 07 16:56	17° \approx 51'11	0°-59'-57
asc. node	5018 Dec 21 14:45	10° \overline{B} 55'25		minimum elong	5024 Feb 07 15:34	17° \approx 48'38	0°59'57
	5019 Feb 07 17:38	0° \overline{II}			5024 Feb 23 22:02	0° \overline{H}	
	5019 Mar 31 12:21	0° \overline{S}			5024 Apr 02 23:34	0° \overline{Y}	
	5019 May 18 15:50	0° \overline{Q}		morning rise	5024 Apr 07 09:52	3° \overline{Y} 27'06	
	5019 Jul 05 11:04	0° \overline{M}			5024 May 11 06:28	0° \overline{B}	
	5019 Aug 22 09:38	0° \overline{A}			5024 Jun 18 15:17	0° \overline{II}	
evening set	5019 Oct 02 04:04	25° \overline{A} 36'08			5024 Jul 27 23:58	0° \overline{S}	

asc. node	5024 Aug 12 11:46	11°♄27'19			5030 Mar 10 06:20	0°♄	
	5024 Sep 07 08:16	0°♄		asc. node	5030 Apr 04 08:30	19°♄29'38	
	5024 Oct 22 01:07	0°♄			5030 Apr 18 00:37	0°♄	
	5024 Dec 12 17:26	0°♄			5030 May 28 00:20	0°♄	
retrograde	5025 Feb 19 09:51	21°♄18'47		evening set	5030 Jun 23 01:46	18°♄52'25	
min. Earth dist.	5025 Mar 30 10:17	11°♄58'57	0.67212 AU		5030 Jul 08 19:21	0°♄	
opposition	5025 Mar 31 18:09	11°♄27'05	4°00'00				
greatest brilliancy	5025 Mar 31 11:48	11°♄33'25	-1.2m	conjunction	5030 Aug 17 12:26	27°♄14'47	1°04'42
direct	5025 May 11 00:55	1°♄50'03		minimum elong	5030 Aug 17 11:29	27°♄13'12	1°04'41
	5025 Aug 04 17:28	0°♄			5030 Aug 21 14:58	0°♄	
desc. node	5025 Aug 18 15:03	7°♄23'39		max. Earth dist.	5030 Sep 09 17:41	12°♄41'17	2.60396 AU
	5025 Sep 26 13:04	0°♄		morning rise	5030 Oct 06 07:59	0°♄00'27	
	5025 Nov 12 04:33	0°♄			5030 Oct 06 07:42	0°♄	
	5025 Dec 25 03:04	0°♄			5030 Nov 22 14:22	0°♄	
	5026 Feb 03 11:20	0°♄			5031 Jan 10 09:32	0°♄	
evening set	5026 Feb 07 06:30	2°♄54'01			5031 Mar 02 17:31	0°♄	
	5026 Mar 14 04:05	0°♄		desc. node	5031 Apr 10 11:11	20°♄26'40	
					5031 May 01 13:23	0°♄	
conjunction	5026 Apr 12 23:21	23°♄31'46	0°-48'-54	retrograde	5031 Jun 22 00:27	12°♄29'19	
minimum elong	5026 Apr 13 02:41	23°♄38'21	0°48'53	opposition	5031 Jul 26 06:02	5°♄41'14	-4°-30'-29
max. Earth dist.	5026 Apr 14 18:12	24°♄56'32	2.36822 AU	greatest brilliancy	5031 Jul 28 02:37	5°♄03'04	-2.2m
	5026 Apr 21 03:36	0°♄		min. Earth dist.	5031 Aug 03 17:59	2°♄47'51	0.48200 AU
	5026 May 29 07:55	0°♄			5031 Aug 13 03:05	30°♄	
morning rise	5026 Jun 23 22:25	19°♄42'16		direct	5031 Sep 01 18:28	27°♄20'04	
asc. node	5026 Jun 30 10:31	24°♄38'03			5031 Sep 21 22:28	0°♄	
	5026 Jul 07 13:41	0°♄			5031 Nov 22 15:44	0°♄	
	5026 Aug 17 14:47	0°♄			5032 Jan 05 03:08	0°♄	
	5026 Sep 30 03:17	0°♄			5032 Feb 14 15:28	0°♄	
	5026 Nov 16 00:19	0°♄		asc. node	5032 Feb 20 08:12	4°♄15'46	
	5027 Jan 08 01:29	0°♄			5032 Mar 25 21:52	0°♄	
retrograde	5027 Mar 25 20:59	24°♄19'21			5032 May 06 04:47	0°♄	
opposition	5027 May 04 15:13	14°♄58'56	2°08'52		5032 Jun 18 02:56	0°♄	
greatest brilliancy	5027 May 04 21:42	14°♄52'34	-1.3m		5032 Aug 01 19:32	0°♄	
min. Earth dist.	5027 May 07 03:27	13°♄59'36	0.67065 AU	evening set	5032 Aug 09 14:29	5°♄07'18	
direct	5027 Jun 15 02:37	4°♄57'30			5032 Sep 16 23:14	0°♄	
desc. node	5027 Jul 06 14:06	7°♄32'07					
	5027 Aug 31 17:01	0°♄		conjunction	5032 Sep 26 19:58	6°♄19'22	1°02'57
	5027 Oct 21 16:40	0°♄		minimum elong	5032 Sep 26 20:47	6°♄20'39	1°02'58
	5027 Dec 04 19:29	0°♄		max. Earth dist.	5032 Oct 03 21:06	10°♄49'37	2.66705 AU
	5028 Jan 14 10:17	0°♄			5032 Nov 03 00:17	0°♄	
	5028 Feb 22 03:07	0°♄		morning rise	5032 Nov 10 23:12	5°♄02'48	
greatest brilliancy	5028 Mar 06 14:41	10°♄37'49	1.2m		5032 Dec 20 08:43	0°♄	
	5028 Mar 31 02:30	0°♄			5033 Feb 05 17:55	0°♄	
evening set	5028 Apr 18 00:13	14°♄06'26		desc. node	5033 Feb 25 10:19	12°♄26'14	
	5028 May 08 09:06	0°♄			5033 Mar 25 08:43	0°♄	
asc. node	5028 May 17 08:26	6°♄55'25			5033 May 13 03:28	0°♄	
	5028 Jun 16 19:39	0°♄			5033 Jul 06 00:28	0°♄	
				retrograde	5033 Sep 03 17:42	17°♄40'45	
conjunction	5028 Jun 24 06:55	5°♄32'35	0°25'02	opposition	5033 Oct 03 18:02	12°♄44'35	-5°-56'-26
minimum elong	5028 Jun 24 05:01	5°♄29'04	0°24'59	greatest brilliancy	5033 Oct 04 11:58	12°♄32'37	-2.9m
	5028 Jul 28 01:27	0°♄		min. Earth dist.	5033 Oct 05 20:03	12°♄11'16	0.37318 AU
max. Earth dist.	5028 Aug 07 15:56	7°♄28'22	2.48978 AU	direct	5033 Nov 02 23:01	7°♄37'29	
morning rise	5028 Aug 23 12:08	18°♄27'25		asc. node	5034 Jan 07 06:38	29°♄49'49	
	5028 Sep 09 11:39	0°♄			5034 Jan 07 13:57	0°♄	
	5028 Oct 25 06:33	0°♄			5034 Feb 25 10:41	0°♄	
	5028 Dec 12 19:13	0°♄			5034 Apr 12 01:41	0°♄	
	5029 Feb 04 01:35	0°♄			5034 May 27 17:58	0°♄	
retrograde	5029 May 02 12:21	29°♄11'52			5034 Jul 13 06:06	0°♄	
desc. node	5029 May 23 12:11	26°♄47'04			5034 Aug 29 11:43	0°♄	
opposition	5029 Jun 09 09:12	20°♄47'04	0°-39'-41	evening set	5034 Sep 17 21:46	12°♄16'30	
greatest brilliancy	5029 Jun 09 14:19	20°♄42'12	-1.6m		5034 Oct 15 21:38	0°♄	
min. Earth dist.	5029 Jun 15 13:04	18°♄26'34	0.60394 AU	max. Earth dist.	5034 Oct 26 11:59	6°♄44'10	2.67549 AU
direct	5029 Jul 20 08:51	10°♄55'30					
	5029 Sep 21 02:33	0°♄		conjunction	5034 Nov 02 05:23	11°♄01'11	0°36'34
	5029 Nov 10 01:42	0°♄		minimum elong	5034 Nov 02 06:21	11°♄02'43	0°36'34
	5029 Dec 22 09:13	0°♄			5034 Dec 01 19:36	0°♄	
	5030 Jan 30 19:20	0°♄		morning rise	5034 Dec 16 05:10	9°♄19'40	

desc. node	5035 Jan 13 08:32	27°♏45'59			5040 Mar 13 19:09	30°♏♏	
	5035 Jan 16 17:35	0°♏		min. Earth dist.	5040 Mar 15 10:59	29°♏20'23	0.65481 AU
	5035 Mar 02 10:36	0°♏		opposition	5040 Mar 18 07:16	28°♏12'00	4°27'14
	5035 Apr 14 23:00	0°♏		greatest brilliancy	5040 Mar 17 16:40	28°♏26'38	-1.3m
	5035 May 27 12:38	0°♏		direct	5040 Apr 26 17:51	18°♏51'42	
	5035 Jul 08 19:31	0°♏			5040 Jun 14 13:01	0°♏	
	5035 Aug 21 19:45	0°♏			5040 Aug 14 22:52	0°♏	
	5035 Oct 16 22:33	0°♏		desc. node	5040 Sep 04 05:31	11°♏36'19	
retrograde	5035 Nov 15 01:19	5°♏39'01			5040 Oct 04 13:35	0°♏	
asc. node	5035 Nov 25 05:56	4°♏53'21			5040 Nov 19 14:53	0°♏	
min. Earth dist.	5035 Dec 11 22:34	0°♏43'57	0.43310 AU		5041 Jan 01 10:54	0°♏	
	5035 Dec 14 04:17	30°♏♏		evening set	5041 Jan 15 14:43	10°♏20'20	
greatest brilliancy	5035 Dec 19 08:54	28°♏15'44	-2.5m	max. Earth dist.	5041 Feb 04 09:16	25°♏05'24	2.40290 AU
opposition	5035 Dec 20 03:29	28°♏00'15	1°33'13		5041 Feb 10 20:49	0°♏	
direct	5036 Jan 20 21:13	21°♏45'58					
	5036 Feb 28 16:02	0°♏		conjunction	5041 Mar 15 17:43	25°♏21'24	-1°-3'-25
	5036 Apr 29 20:04	0°♏		minimum elong	5041 Mar 15 19:00	25°♏23'55	1°03'27
	5036 Jun 20 10:33	0°♏			5041 Mar 21 16:11	0°♏	
	5036 Aug 09 02:01	0°♏			5041 Apr 28 17:40	0°♏	
	5036 Sep 26 13:50	0°♏		morning rise	5041 May 24 11:18	20°♏15'47	
evening set	5036 Oct 23 08:56	16°♏56'44			5041 Jun 05 22:32	0°♏	
	5036 Nov 12 15:55	0°♏			5041 Jul 15 03:47	0°♏	
max. Earth dist.	5036 Nov 18 09:50	3°♏44'08	2.62945 AU	asc. node	5041 Jul 17 02:40	1°♏27'47	
desc. node	5036 Nov 30 07:19	11°♏31'45			5041 Aug 25 05:09	0°♏	
					5041 Oct 07 23:00	0°♏	
conjunction	5036 Dec 07 19:21	16°♏29'07	0°-4'-8		5041 Nov 24 20:12	0°♏	
minimum elong	5036 Dec 07 19:14	16°♏28'55	0°04'08		5042 Jan 22 02:59	0°♏	
behind sun begin	5036 Dec 07 00:32	15°♏57'58		retrograde	5042 Mar 12 07:31	11°♏44'41	
behind sun end	5036 Dec 08 13:56	16°♏59'53		opposition	5042 Apr 21 10:27	2°♏09'26	2°58'17
	5036 Dec 27 23:57	0°♏		greatest brilliancy	5042 Apr 21 13:47	2°♏06'08	-1.2m
morning rise	5037 Jan 22 23:26	17°♏46'46		min. Earth dist.	5042 Apr 22 10:44	1°♏45'20	0.67917 AU
	5037 Feb 09 10:57	0°♏			5042 Apr 26 21:46	30°♏♏	
	5037 Mar 23 03:54	0°♏		direct	5042 Jun 01 14:37	22°♏14'29	
	5037 May 02 11:12	0°♏			5042 Jul 11 00:42	0°♏	
	5037 Jun 10 22:32	0°♏		desc. node	5042 Jul 23 04:05	4°♏39'06	
	5037 Jul 20 11:01	0°♏			5042 Sep 11 14:50	0°♏	
	5037 Aug 30 10:28	0°♏			5042 Oct 30 04:54	0°♏	
asc. node	5037 Oct 12 05:28	28°♏27'06			5042 Dec 12 16:55	0°♏	
	5037 Oct 14 18:40	0°♏			5043 Jan 22 03:47	0°♏	
retrograde	5037 Dec 31 20:22	29°♏18'22			5043 Mar 01 19:41	0°♏	
min. Earth dist.	5038 Feb 02 06:01	22°♏11'29	0.56594 AU	evening set	5043 Mar 20 19:44	15°♏00'14	
greatest brilliancy	5038 Feb 07 08:35	20°♏12'16	-1.7m		5043 Apr 08 18:17	0°♏	
opposition	5038 Feb 08 20:17	19°♏37'23	4°36'40		5043 May 16 22:53	0°♏	
direct	5038 Mar 17 04:05	11°♏23'23					
	5038 May 21 10:46	0°♏		conjunction	5043 May 29 07:30	9°♏33'08	0°-4'-2
	5038 Jul 18 01:01	0°♏		minimum elong	5043 May 29 07:52	9°♏33'51	0°04'03
	5038 Sep 07 05:02	0°♏		behind sun begin	5043 May 28 03:22	8°♏39'04	
desc. node	5038 Oct 18 06:43	25°♏33'37		behind sun end	5043 May 30 12:21	10°♏28'34	
	5038 Oct 25 05:05	0°♏		asc. node	5043 Jun 04 02:26	13°♏59'29	
evening set	5038 Nov 30 19:56	24°♏05'56			5043 Jun 25 06:11	0°♏	
	5038 Dec 09 13:05	0°♏		max. Earth dist.	5043 Jul 19 19:16	18°♏06'01	2.43479 AU
max. Earth dist.	5038 Dec 17 00:39	5°♏07'02	2.53265 AU	morning rise	5043 Aug 03 08:44	28°♏34'57	
					5043 Aug 05 08:29	0°♏	
conjunction	5039 Jan 18 23:05	28°♏13'28	0°-47'-30		5043 Sep 17 17:02	0°♏	
minimum elong	5039 Jan 18 21:34	28°♏10'43	0°47'31		5043 Nov 02 17:11	0°♏	
	5039 Jan 21 10:32	0°♏			5043 Dec 22 06:40	0°♏	
	5039 Mar 03 06:11	0°♏			5044 Feb 18 03:37	0°♏	
morning rise	5039 Mar 14 00:06	8°♏06'32		retrograde	5044 Apr 16 15:26	15°♏18'09	
	5039 Apr 11 13:31	0°♏		opposition	5044 May 25 10:09	6°♏28'06	0°32'54
	5039 May 20 01:35	0°♏		greatest brilliancy	5044 May 25 13:44	6°♏24'38	-1.4m
	5039 Jun 27 14:27	0°♏		min. Earth dist.	5044 May 30 04:50	4°♏37'07	0.63748 AU
	5039 Aug 06 03:23	0°♏		desc. node	5044 Jun 09 02:45	1°♏02'16	
asc. node	5039 Aug 30 03:16	17°♏30'47			5044 Jun 12 10:49	30°♏♏	
	5039 Sep 16 20:43	0°♏		direct	5044 Jul 05 20:03	26°♏27'03	
	5039 Nov 01 18:41	0°♏			5044 Jul 30 19:59	0°♏	
	5039 Dec 30 09:10	0°♏			5044 Oct 04 07:56	0°♏	
retrograde	5040 Feb 07 01:13	8°♏09'24			5044 Nov 19 18:12	0°♏	

	5044 Dec 31 03:00	0° H			5050 Jan 24 00:06	0° Z		
	5045 Feb 08 03:27	0° Y		desc. node	5050 Jan 30 00:01	3° Z 55'15		
	5045 Mar 18 08:07	0° B			5050 Mar 10 12:57	0° \approx		
asc. node	5045 Apr 21 01:05	26° B 17'57			5050 Apr 24 08:35	0° H		
	5045 Apr 25 20:15	0° II			5050 Jun 07 21:10	0° Y		
evening set	5045 May 30 14:38	26° II 20'01			5050 Jul 23 13:43	0° B		
	5045 Jun 04 13:13	0° S			5050 Sep 16 18:34	0° II		
	5045 Jul 16 01:31	0° Q		retrograde	5050 Oct 21 12:35	7° II 39'19		
				min. Earth dist.	5050 Nov 17 00:23	3° II 13'03	0.38918 AU	
conjunction	5045 Jul 29 11:41	9° Q 23'46	0°55'17	opposition	5050 Nov 22 23:24	1° II 27'35	-1°-19'-45	
minimum elong	5045 Jul 29 09:50	9° Q 20'34	0°55'16	greatest brilliancy	5050 Nov 22 14:16	1° II 34'20	-2.8m	
	5045 Aug 28 15:37	0° M			5050 Nov 28 01:00	30° R B		
max. Earth dist.	5045 Aug 29 11:45	0° M 33'50	2.56462 AU	asc. node	5050 Dec 11 22:18	26° B 57'24		
morning rise	5045 Sep 20 12:53	15° M 12'26		direct	5050 Dec 22 23:12	26° B 08'17		
	5045 Oct 13 06:52	0° A			5051 Jan 17 03:28	0° II		
	5045 Nov 29 20:34	0° M			5051 Mar 22 16:33	0° S		
	5046 Jan 18 18:10	0° A			5051 May 12 06:09	0° Q		
	5046 Mar 14 18:03	0° Z			5051 Jun 30 01:36	0° M		
desc. node	5046 Apr 27 01:22	18° Z 11'15			5051 Aug 17 12:16	0° A		
retrograde	5046 May 31 04:53	24° Z 10'34			5051 Oct 04 11:28	0° M		
opposition	5046 Jul 06 01:52	16° Z 37'57	-2°-55'-4	evening set	5051 Oct 10 05:12	3° M 37'31		
greatest brilliancy	5046 Jul 07 06:10	16° Z 12'19	-1.9m	max. Earth dist.	5051 Nov 09 19:13	23° M 07'42	2.65407 AU	
min. Earth dist.	5046 Jul 14 00:24	13° Z 45'46	0.53448 AU		5051 Nov 20 10:37	0° A		
direct	5046 Aug 14 10:47	7° Z 26'02						
	5046 Oct 20 06:08	0° \approx		conjunction	5051 Nov 24 05:40	2° A 27'40	0°12'47	
	5046 Dec 05 21:54	0° H		minimum elong	5051 Nov 24 06:04	2° A 28'19	0°12'48	
	5047 Jan 15 20:29	0° Y		behind sun begin	5051 Nov 23 18:35	2° A 09'41		
	5047 Feb 24 04:21	0° B		behind sun end	5051 Nov 24 17:33	2° A 46'57		
asc. node	5047 Mar 08 23:52	9° B 48'03		desc. node	5051 Dec 17 22:15	17° A 59'23		
	5047 Apr 04 15:13	0° II			5052 Jan 04 22:54	0° Z		
	5047 May 15 06:05	0° S		morning rise	5052 Jan 08 01:26	2° Z 05'16		
	5047 Jun 26 14:56	0° Q			5052 Feb 17 19:32	0° \approx		
evening set	5047 Jul 24 06:27	18° Q 52'53			5052 Mar 31 01:58	0° H		
	5047 Aug 09 21:15	0° M			5052 May 11 00:39	0° Y		
					5052 Jun 20 04:37	0° B		
conjunction	5047 Sep 12 16:24	22° M 10'20	1°07'18		5052 Jul 30 13:39	0° II		
minimum elong	5047 Sep 12 16:43	22° M 10'51	1°07'18		5052 Sep 11 04:11	0° S		
	5047 Sep 24 19:01	0° A		asc. node	5052 Oct 28 21:06	28° S 06'23		
max. Earth dist.	5047 Sep 25 12:41	0° A 28'27	2.64890 AU		5052 Nov 01 21:55	0° Q		
morning rise	5047 Oct 29 03:39	21° A 57'50		retrograde	5052 Dec 15 04:02	11° Q 11'08		
	5047 Nov 10 20:07	0° M		min. Earth dist.	5053 Jan 14 06:42	4° Q 54'42	0.51640 AU	
	5047 Dec 28 13:53	0° A		greatest brilliancy	5053 Jan 20 11:18	2° Q 35'26	-2.0m	
	5048 Feb 15 00:14	0° Z		opposition	5053 Jan 22 01:46	1° Q 59'07	4°00'34	
desc. node	5048 Mar 14 00:39	16° Z 59'57			5053 Jan 27 11:46	30° R S		
	5048 Apr 05 00:10	0° \approx		direct	5053 Feb 25 19:13	24° S 24'08		
	5048 May 30 10:37	0° H			5053 Mar 29 17:51	0° Q		
retrograde	5048 Aug 02 13:39	18° H 45'41			5053 Jun 03 18:08	0° M		
opposition	5048 Sep 02 16:03	13° H 19'02	-6°-26'-39		5053 Jul 26 19:20	0° A		
greatest brilliancy	5048 Sep 04 15:44	12° H 44'09	-2.6m		5053 Sep 14 15:08	0° M		
min. Earth dist.	5048 Sep 09 06:53	11° H 23'25	0.40367 AU		5053 Nov 01 04:18	0° A		
direct	5048 Oct 05 20:00	7° H 00'51		desc. node	5053 Nov 03 21:00	1° A 44'38		
	5048 Dec 10 02:00	0° Y		evening set	5053 Nov 15 07:10	9° A 11'27		
asc. node	5049 Jan 23 23:42	28° Y 51'09		max. Earth dist.	5053 Dec 04 23:05	22° A 13'49	2.57640 AU	
	5049 Jan 25 16:01	0° B			5053 Dec 16 11:24	0° Z		
	5049 Mar 09 18:45	0° II						
	5049 Apr 21 21:28	0° S		conjunction	5054 Jan 01 09:59	10° Z 55'40	0°-31'-31	
	5049 Jun 05 02:56	0° Q		minimum elong	5054 Jan 01 08:52	10° Z 53'45	0°31'31	
	5049 Jul 20 17:24	0° M			5054 Jan 28 13:22	0° \approx		
evening set	5049 Sep 03 05:59	28° M 36'20		morning rise	5054 Feb 20 08:44	16° \approx 28'46		
	5049 Sep 05 10:29	0° A			5054 Mar 10 16:24	0° H		
max. Earth dist.	5049 Oct 17 19:48	26° A 56'32	2.67878 AU		5054 Apr 19 07:41	0° Y		
					5054 May 28 02:55	0° B		
conjunction	5049 Oct 19 07:10	27° A 52'41	0°48'58		5054 Jul 05 21:58	0° II		
minimum elong	5049 Oct 19 08:15	27° A 54'23	0°48'59		5054 Aug 14 18:15	0° S		
	5049 Oct 22 15:20	0° M		asc. node	5054 Sep 15 21:14	22° S 58'16		
morning rise	5049 Dec 02 08:47	25° M 58'14			5054 Sep 26 04:02	0° Q		
	5049 Dec 08 15:35	0° A			5054 Nov 13 12:52	0° M		

retrograde	5055 Jan 24 06:17	24° \mathbb{M} 14'43			5060 May 03 12:39	0° \mathbb{I}	
min. Earth dist.	5055 Feb 28 20:35	16° \mathbb{M} 01'22	0.62726 AU	evening set	5060 May 04 00:55	0° \mathbb{I} 23'44	
greatest brilliancy	5055 Mar 04 05:48	14° \mathbb{M} 40'22	-1.4m	asc. node	5060 May 07 17:58	3° \mathbb{I} 15'40	
opposition	5055 Mar 05 05:24	14° \mathbb{M} 16'48	4°43'34		5060 Jun 12 00:20	0° \mathbb{S}	
direct	5055 Apr 12 14:35	5° \mathbb{M} 17'48					
	5055 Jun 30 13:16	0° \mathbb{A}		conjunction	5060 Jul 07 21:08	18° \mathbb{S} 58'05	0°38'21
	5055 Aug 24 20:28	0° \mathbb{M}		minimum elong	5060 Jul 07 18:51	18° \mathbb{S} 53'58	0°38'19
desc. node	5055 Sep 21 19:58	16° \mathbb{M} 43'18			5060 Jul 23 07:14	0° \mathbb{Q}	
	5055 Oct 13 03:13	0° \mathbb{X}		max. Earth dist.	5060 Aug 16 12:45	16° \mathbb{Q} 55'41	2.51807 AU
	5055 Nov 27 19:39	0° \mathbb{Z}		morning rise	5060 Sep 03 05:39	28° \mathbb{Q} 59'42	
evening set	5055 Dec 27 21:21	20° \mathbb{Z} 52'53			5060 Sep 04 17:25	0° \mathbb{M}	
	5056 Jan 09 15:15	0° \approx			5060 Oct 20 09:27	0° \mathbb{A}	
max. Earth dist.	5056 Jan 11 05:52	1° \approx 09'45	2.45454 AU		5060 Dec 07 10:54	0° \mathbb{M}	
	5056 Feb 19 04:21	0° \mathbb{X}			5061 Jan 28 02:23	0° \mathbb{X}	
					5061 Apr 01 16:35	0° \mathbb{Z}	
conjunction	5056 Feb 20 02:42	0° \mathbb{X} 42'19	-1°-4'-10	retrograde	5061 May 12 08:05	8° \mathbb{Z} 07'58	
minimum elong	5056 Feb 20 01:54	0° \mathbb{X} 40'49	1°04'10	desc. node	5061 May 13 16:29	8° \mathbb{Z} 07'18	
	5056 Mar 29 03:44	0° \mathbb{Y}		opposition	5061 Jun 18 13:22	29° \mathbb{X} 59'50	-1°-26'-30
morning rise	5056 Apr 23 12:57	19° \mathbb{Y} 54'23			5061 Jun 18 13:12	30° \mathbb{R} \mathbb{X}	
	5056 May 06 08:39	0° \mathbb{Z}		greatest brilliancy	5061 Jun 19 01:44	29° \mathbb{X} 48'14	-1.7m
greatest brilliancy	5056 May 06 17:23	0° \mathbb{Z} 17'11	1.2m	min. Earth dist.	5061 Jun 25 09:48	27° \mathbb{X} 25'41	0.58119 AU
	5056 Jun 13 15:42	0° \mathbb{I}		direct	5061 Jul 29 02:05	20° \mathbb{X} 18'25	
	5056 Jul 22 22:14	0° \mathbb{S}			5061 Sep 09 02:06	0° \mathbb{Z}	
asc. node	5056 Aug 02 20:15	8° \mathbb{S} 07'09			5061 Nov 03 01:47	0° \approx	
	5056 Sep 02 02:24	0° \mathbb{Q}			5061 Dec 16 10:03	0° \mathbb{X}	
	5056 Oct 16 07:04	0° \mathbb{M}			5062 Jan 25 05:59	0° \mathbb{Y}	
	5056 Dec 04 23:57	0° \mathbb{A}			5062 Mar 04 22:50	0° \mathbb{Z}	
retrograde	5057 Feb 27 00:38	29° \mathbb{A} 07'31		asc. node	5062 Mar 25 16:55	16° \mathbb{Z} 03'41	
opposition	5057 Apr 08 07:54	19° \mathbb{A} 20'41	3°39'41		5062 Apr 12 21:45	0° \mathbb{I}	
greatest brilliancy	5057 Apr 08 05:30	19° \mathbb{A} 23'06	-1.2m		5062 May 23 01:28	0° \mathbb{S}	
min. Earth dist.	5057 Apr 07 19:43	19° \mathbb{A} 32'52	0.67736 AU		5062 Jul 04 00:07	0° \mathbb{Q}	
direct	5057 May 18 23:36	9° \mathbb{A} 36'20		evening set	5062 Jul 05 00:42	0° \mathbb{Q} 42'55	
	5057 Jul 27 19:47	0° \mathbb{M}			5062 Aug 16 22:10	0° \mathbb{M}	
desc. node	5057 Aug 08 18:45	5° \mathbb{M} 54'36					
	5057 Sep 20 21:49	0° \mathbb{X}		conjunction	5062 Aug 27 09:54	6° \mathbb{M} 58'42	1°07'11
	5057 Nov 07 03:57	0° \mathbb{Z}		minimum elong	5062 Aug 27 09:30	6° \mathbb{M} 58'01	1°07'10
	5057 Dec 20 07:16	0° \approx		max. Earth dist.	5062 Sep 15 17:24	19° \mathbb{M} 40'20	2.62220 AU
	5058 Jan 29 16:39	0° \mathbb{X}			5062 Oct 01 15:34	0° \mathbb{A}	
evening set	5058 Feb 21 09:37	17° \mathbb{X} 29'53		morning rise	5062 Oct 14 19:48	8° \mathbb{A} 28'04	
	5058 Mar 09 08:58	0° \mathbb{Y}			5062 Nov 17 18:54	0° \mathbb{M}	
	5058 Apr 16 07:50	0° \mathbb{Z}			5063 Jan 05 02:47	0° \mathbb{X}	
					5063 Feb 24 03:02	0° \mathbb{Z}	
conjunction	5058 Apr 29 18:24	10° \mathbb{Z} 37'21	0°-34'-36	desc. node	5063 Mar 31 15:43	20° \mathbb{Z} 04'22	
minimum elong	5058 Apr 29 21:32	10° \mathbb{Z} 43'32	0°34'36		5063 Apr 19 14:49	0° \approx	
	5058 May 24 11:39	0° \mathbb{I}		retrograde	5063 Jul 05 23:38	24° \approx 40'56	
max. Earth dist.	5058 Jun 14 18:01	16° \mathbb{I} 24'12	2.38292 AU	opposition	5063 Aug 08 04:31	18° \approx 21'31	-5°-22'-37
asc. node	5058 Jun 20 18:14	20° \mathbb{I} 58'50		greatest brilliancy	5063 Aug 10 07:36	17° \approx 39'52	-2.3m
	5058 Jul 02 17:01	0° \mathbb{S}		min. Earth dist.	5063 Aug 16 14:47	15° \approx 37'57	0.45218 AU
morning rise	5058 Jul 09 15:42	5° \mathbb{S} 11'08		direct	5063 Sep 13 08:22	10° \approx 39'21	
	5058 Aug 12 17:27	0° \mathbb{Q}			5063 Nov 11 09:56	0° \mathbb{X}	
	5058 Sep 25 02:49	0° \mathbb{M}			5063 Dec 28 08:18	0° \mathbb{Y}	
	5058 Nov 10 13:09	0° \mathbb{A}			5064 Feb 08 01:01	0° \mathbb{Z}	
	5058 Dec 31 20:24	0° \mathbb{M}		asc. node	5064 Feb 10 15:11	1° \mathbb{Z} 53'51	
	5059 Mar 14 08:49	0° \mathbb{X}			5064 Mar 19 23:51	0° \mathbb{I}	
retrograde	5059 Apr 02 22:50	2° \mathbb{X} 08'32			5064 Apr 30 18:10	0° \mathbb{S}	
	5059 Apr 21 06:19	30° \mathbb{R} \mathbb{M}			5064 Jun 13 01:01	0° \mathbb{Q}	
opposition	5059 May 12 09:43	22° \mathbb{M} 57'54	1°35'56		5064 Jul 27 23:47	0° \mathbb{M}	
greatest brilliancy	5059 May 12 16:22	22° \mathbb{M} 51'23	-1.3m	evening set	5064 Aug 18 20:54	14° \mathbb{M} 15'40	
min. Earth dist.	5059 May 15 17:14	21° \mathbb{M} 39'57	0.66154 AU		5064 Sep 12 07:19	0° \mathbb{A}	
direct	5059 Jun 22 22:07	12° \mathbb{M} 55'08					
desc. node	5059 Jun 26 17:17	13° \mathbb{M} 00'28		conjunction	5064 Oct 05 03:39	14° \mathbb{A} 35'45	0°58'43
	5059 Aug 22 23:52	0° \mathbb{X}		minimum elong	5064 Oct 05 04:37	14° \mathbb{A} 37'18	0°58'43
	5059 Oct 15 16:59	0° \mathbb{Z}		max. Earth dist.	5064 Oct 09 02:14	17° \mathbb{A} 06'19	2.67367 AU
	5059 Nov 29 11:56	0° \approx			5064 Oct 29 08:56	0° \mathbb{M}	
	5060 Jan 09 08:41	0° \mathbb{X}		morning rise	5064 Nov 18 18:12	12° \mathbb{M} 56'57	
	5060 Feb 17 03:58	0° \mathbb{Y}			5064 Dec 15 13:42	0° \mathbb{X}	
	5060 Mar 26 04:50	0° \mathbb{Z}			5065 Jan 31 12:46	0° \mathbb{Z}	

desc. node	5065 Feb 15 14:27	9°  40'06		greatest brilliancy	5070 Feb 16 18:39	29°  48'51	-1.6m
	5065 Mar 19 06:07	0° 		opposition	5070 Feb 18 02:42	29°  17'11	4°45'11
	5065 May 05 04:24	0° 		direct	5070 Mar 27 05:17	20°  45'17	
	5065 Jun 22 18:53	0° 			5070 May 09 12:14	0° 	
	5065 Aug 21 15:43	0° 			5070 Jul 11 15:43	0° 	
retrograde	5065 Sep 22 02:22	5°  55'45			5070 Sep 01 23:37	0° 	
min. Earth dist.	5065 Oct 21 04:34	1°  08'09	0.36939 AU	desc. node	5070 Oct 08 10:17	22°  12'3'48	
opposition	5065 Oct 22 05:42	0°  51'30	-4°-38'-24		5070 Oct 20 09:39	0° 	
greatest brilliancy	5065 Oct 22 05:09	0°  51'52	-2.9m		5070 Dec 04 21:02	0° 	
	5065 Oct 25 11:52	30°  R 		evening set	5070 Dec 10 05:06	3°  38'33	
direct	5065 Nov 20 15:23	25°  Y58'27		max. Earth dist.	5070 Dec 25 04:04	13°  59'12	2.50620 AU
	5065 Dec 16 00:30	0° 			5071 Jan 16 18:18	0° 	
asc. node	5065 Dec 28 15:16	4°  8'27'47					
	5066 Feb 15 19:36	0° 		conjunction	5071 Jan 29 19:58	9°  28'12	0°-55'-18
	5066 Apr 05 01:53	0° 		minimum elong	5071 Jan 29 18:26	9°  25'23	0°55'18
	5066 May 21 22:28	0° 			5071 Feb 26 12:09	0° 	
	5066 Jul 08 01:55	0° 		morning rise	5071 Mar 27 19:13	22°  Y20'22	
	5066 Aug 24 16:17	0° 			5071 Apr 06 16:47	0° 	
evening set	5066 Sep 26 02:44	20°  5'25'24			5071 May 15 02:02	0° 	
	5066 Oct 11 06:18	0° 			5071 Jun 22 12:09	0° 	
max. Earth dist.	5066 Oct 31 15:45	12°  15'57'52	2.67020 AU		5071 Jul 31 21:23	0° 	
				asc. node	5071 Aug 20 12:24	14°  52'7'10	
conjunction	5066 Nov 10 04:46	19°  10'3'56	0°28'18		5071 Sep 11 07:25	0° 	
minimum elong	5066 Nov 10 05:34	19°  10'5'12	0°28'19		5071 Oct 26 07:59	0° 	
	5066 Nov 27 04:29	0° 			5071 Dec 18 19:14	0° 	
morning rise	5066 Dec 24 07:52	17°  Y41'12		retrograde	5072 Feb 14 18:24	16°  5'14'56	
desc. node	5067 Jan 03 12:38	24°  Y24'38		min. Earth dist.	5072 Mar 24 01:36	7°  5'08'31	0.66562 AU
	5067 Jan 11 22:51	0° 		opposition	5072 Mar 26 02:07	6°  5'19'56	4°12'35
	5067 Feb 25 07:53	0° 		greatest brilliancy	5072 Mar 25 16:13	6°  5'29'51	-1.3m
	5067 Apr 09 08:19	0° 			5072 Apr 12 19:45	30°  R 	
	5067 May 21 05:20	0° 		direct	5072 May 05 00:28	26°  17'49'56	
	5067 Jul 01 12:44	0° 			5072 May 29 06:46	0° 	
	5067 Aug 12 15:03	0° 			5072 Aug 08 10:08	0° 	
	5067 Sep 28 16:28	0° 		desc. node	5072 Aug 25 09:18	9°  12'20'16	
asc. node	5067 Nov 15 15:01	18°  5'54'59			5072 Sep 29 06:44	0° 	
retrograde	5067 Nov 27 04:03	19°  5'51'48			5072 Nov 14 17:32	0° 	
min. Earth dist.	5067 Dec 25 00:16	14°  5'29'22	0.46231 AU		5072 Dec 27 16:15	0° 	
greatest brilliancy	5068 Jan 01 03:19	11°  5'59'36	-2.3m	evening set	5073 Jan 28 01:16	23°  5'23'09'18	
opposition	5068 Jan 02 09:57	11°  5'32'33	2°43'00		5073 Feb 06 02:24	0° 	
direct	5068 Feb 04 07:13	4°  5'47'02		max. Earth dist.	5073 Mar 01 02:22	17°  Y41'07	2.37866 AU
	5068 Apr 20 22:45	0° 			5073 Mar 16 20:54	0° 	
	5068 Jun 14 06:43	0° 					
	5068 Aug 03 21:06	0° 		conjunction	5073 Mar 31 06:46	11°  Y20'20	0°-56'-59
	5068 Sep 21 18:53	0° 		minimum elong	5073 Mar 31 09:28	11°  Y25'38	0°57'00
evening set	5068 Oct 31 13:59	25°  11'24			5073 Apr 23 21:27	0° 	
	5068 Nov 08 00:49	0° 			5073 Jun 01 01:41	0° 	
desc. node	5068 Nov 20 11:10	8°  Y5'05'43		morning rise	5073 Jun 10 22:21	7°  11'38'53	
max. Earth dist.	5068 Nov 24 05:07	10°  Y5'33'16	2.61274 AU	asc. node	5073 Jul 07 11:40	27°  11'54'53	
					5073 Jul 10 06:13	0° 	
conjunction	5068 Dec 16 10:44	25°  Y19'57	0°-14'-15		5073 Aug 20 05:54	0° 	
minimum elong	5068 Dec 16 10:14	25°  Y19'06	0°14'13		5073 Oct 02 18:30	0° 	
behind sun begin	5068 Dec 16 00:55	25°  Y03'27			5073 Nov 18 22:00	0° 	
behind sun end	5068 Dec 16 19:34	25°  Y34'46			5074 Jan 12 10:32	0° 	
	5068 Dec 23 08:51	0° 		retrograde	5074 Mar 20 01:17	19°  12'24'48	
morning rise	5069 Feb 01 16:05	27°  Y51'33		opposition	5074 Apr 28 23:31	9°  12'57'14	2°30'16
	5069 Feb 04 16:45	0° 		greatest brilliancy	5074 Apr 29 04:52	9°  12'51'56	-1.2m
	5069 Mar 18 04:42	0° 		min. Earth dist.	5074 Apr 30 19:15	9°  12'13'58	0.67570 AU
	5069 Apr 27 05:46	0° 			5074 Jun 07 03:32	30°  R 	
	5069 Jun 05 10:24	0° 		direct	5074 Jun 09 08:07	29°  5'58'12	
	5069 Jul 14 15:01	0° 			5074 Jun 11 13:12	0° 	
	5069 Aug 24 00:52	0° 		desc. node	5074 Jul 13 08:21	5°  12'57'50	
asc. node	5069 Oct 02 13:06	27° Y5'14'17			5074 Sep 04 19:36	0°	
	5069 Oct 06 19:47	0°			5074 Oct 24 17:56	0°	
	5069 Nov 30 22:58	0°			5074 Dec 07 15:22	0°	
retrograde	5070 Jan 09 16:10	9° 17'07'30			5075 Jan 17 05:28	0°	
min. Earth dist.	5070 Feb 12 06:46	1° 17'35'09	0.59029 AU		5075 Feb 24 22:14	0°	
	5070 Feb 16 07:23	30° R			5075 Apr 03 21:09	0°	

evening set	5075 Apr 06 06:12	1°♄52'47			5079 Nov 06 03:40	0°♌	
greatest brilliancy	5075 Apr 17 14:15	10°♄49'32	1.2m		5079 Dec 23 15:46	0°♏	
	5075 May 12 02:20	0°♐			5080 Feb 09 10:54	0°♑	
asc. node	5075 May 25 09:20	10°♐15'47		desc. node	5080 Mar 04 04:41	14°♑46'34	
					5080 Mar 28 22:49	0°♒	
conjunction	5075 Jun 13 23:54	25°♐10'14	0°13'19		5080 May 18 19:26	0°♓	
minimum elong	5075 Jun 13 22:44	25°♐08'02	0°13'17		5080 Jul 21 23:16	0°♈	
behind sun begin	5075 Jun 13 06:59	24°♐38'24		retrograde	5080 Aug 20 07:39	4°♈55'26	
behind sun end	5075 Jun 14 14:28	25°♐37'38		opposition	5080 Sep 19 15:48	29°♈51'05	-6°-25'-40
	5075 Jun 20 10:24	0°♉			5080 Sep 19 02:52	30°♈	
	5075 Jul 31 13:20	0°♊		greatest brilliancy	5080 Sep 21 01:27	29°♈27'50	-2.8m
max. Earth dist.	5075 Aug 01 03:00	0°♊24'18	2.46566 AU	min. Earth dist.	5080 Sep 24 01:24	28°♈38'25	0.38348 AU
morning rise	5075 Aug 15 17:55	10°♊42'12		direct	5080 Oct 21 01:09	24°♈17'27	
	5075 Sep 12 21:16	0°♋			5080 Nov 19 22:24	0°♈	
	5075 Oct 28 16:34	0°♌		asc. node	5081 Jan 14 07:34	28°♈56'52	
	5075 Dec 16 12:37	0°♍			5081 Jan 15 23:46	0°♉	
	5076 Feb 09 04:33	0°♎			5081 Mar 02 12:01	0°♐	
retrograde	5076 Apr 25 12:51	23°♎35'41			5081 Apr 15 18:55	0°♑	
desc. node	5076 May 30 06:53	16°♎19'22			5081 May 30 16:56	0°♒	
opposition	5076 Jun 02 19:50	14°♎58'51	0°-8'-7		5081 Jul 15 17:49	0°♓	
greatest brilliancy	5076 May 18 00:58	20°♎23'48	-1.6m		5081 Aug 31 16:59	0°♈	
min. Earth dist.	5076 Jun 08 08:35	12°♎51'30	0.62016 AU	evening set	5081 Sep 11 17:14	6°♈59'11	
direct	5076 Jul 14 00:46	5°♎01'55			5081 Oct 18 00:16	0°♉	
	5076 Sep 26 12:55	0°♏		max. Earth dist.	5081 Oct 22 23:03	3°♉08'39	2.67798 AU
	5076 Nov 13 18:35	0°♐					
	5076 Dec 25 16:25	0°♑		conjunction	5081 Oct 27 07:16	5°♉54'17	0°41'59
	5077 Feb 02 22:17	0°♒		minimum elong	5081 Oct 27 08:18	5°♉55'55	0°41'59
	5077 Mar 13 06:00	0°♓			5081 Dec 03 23:26	0°♊	
asc. node	5077 Apr 11 09:15	22°♓42'00		morning rise	5081 Dec 10 06:17	4°♊03'09	
	5077 Apr 20 20:42	0°♐			5082 Jan 19 02:24	0°♋	
	5077 May 30 16:03	0°♑		desc. node	5082 Jan 20 03:04	0°♋40'34	
evening set	5077 Jun 13 07:14	9°♑59'15			5082 Mar 05 04:11	0°♌	
	5077 Jul 11 06:38	0°♒			5082 Apr 18 05:44	0°♍	
					5082 May 31 13:15	0°♎	
conjunction	5077 Aug 09 14:42	20°♒18'48	1°01'34		5082 Jul 13 23:20	0°♏	
minimum elong	5077 Aug 09 13:22	20°♒16'32	1°01'34		5082 Aug 29 12:08	0°♐	
	5077 Aug 23 22:23	0°♓		retrograde	5082 Nov 04 23:00	24°♐27'40	
max. Earth dist.	5077 Sep 05 05:43	8°♓12'54	2.58741 AU	min. Earth dist.	5082 Dec 01 07:50	19°♐50'25	0.41136 AU
morning rise	5077 Sep 29 17:36	24°♓17'42		asc. node	5082 Dec 02 06:37	19°♐32'48	
	5077 Oct 08 13:11	0°♔		opposition	5082 Dec 08 21:32	17°♐27'06	0°26'24
	5077 Nov 24 21:31	0°♕		greatest brilliancy	5082 Dec 08 16:18	17°♐31'13	-2.7m
	5078 Jan 13 01:58	0°♖		direct	5083 Jan 08 18:00	11°♐38'40	
	5078 Mar 06 15:18	0°♗			5083 Mar 11 08:37	0°♑	
desc. node	5078 Apr 17 05:42	20°♗26'35			5083 May 05 05:22	0°♒	
	5078 May 13 08:04	0°♒			5083 Jun 24 10:16	0°♓	
retrograde	5078 Jun 12 02:23	4°♒42'01			5083 Aug 12 12:04	0°♔	
	5078 Jul 09 20:17	30°♒♑			5083 Sep 29 18:14	0°♕	
opposition	5078 Jul 17 02:57	27°♒32'43	-3°-49'-14	evening set	5083 Oct 18 07:26	11°♕43'03	
greatest brilliancy	5078 Jul 18 16:47	26°♒59'22	-2.0m	max. Earth dist.	5083 Nov 15 06:49	29°♕39'16	2.64144 AU
min. Earth dist.	5078 Jul 25 11:32	24°♒37'01	0.50602 AU		5083 Nov 15 19:37	0°♖	
direct	5078 Aug 24 13:32	18°♒46'01					
	5078 Oct 07 15:16	0°♓		conjunction	5083 Dec 02 12:05	10°♖52'54	0°03'05
	5078 Nov 28 06:52	0°♔		minimum elong	5083 Dec 02 12:10	10°♖53'03	0°03'06
	5079 Jan 09 10:38	0°♕		behind sun begin	5083 Dec 01 17:28	10°♖22'23	
	5079 Feb 18 08:12	0°♖		behind sun end	5083 Dec 03 06:52	11°♖23'44	
asc. node	5079 Feb 27 09:12	6°♖50'33		desc. node	5083 Dec 08 01:48	14°♖32'53	
	5079 Mar 30 04:17	0°♐			5083 Dec 31 06:21	0°♗	
	5079 May 10 02:14	0°♑		morning rise	5084 Jan 16 23:29	11°♗20'23	
	5079 Jun 21 16:44	0°♒			5084 Feb 12 22:22	0°♘	
evening set	5079 Aug 03 08:32	28°♒49'10			5084 Mar 25 21:57	0°♙	
	5079 Aug 05 03:17	0°♓			5084 May 05 12:18	0°♚	
	5079 Sep 20 03:20	0°♔			5084 Jun 14 06:31	0°♛	
					5084 Jul 24 02:32	0°♜	
conjunction	5079 Sep 21 11:27	0°♔51'39	1°05'14		5084 Sep 03 13:54	0°♝	
minimum elong	5079 Sep 21 12:06	0°♔52'41	1°05'14	asc. node	5084 Oct 19 06:41	29°♝16'36	
max. Earth dist.	5079 Oct 01 00:19	6°♔58'59	2.66001 AU		5084 Oct 20 13:19	0°♞	
morning rise	5079 Nov 06 03:10	29°♔59'12		retrograde	5084 Dec 24 21:09	22°♞15'48	

min. Earth dist.	5085 Jan 25 06:53	15°♏30'44	0.54454 AU	evening set	5090 Mar 08 11:11	3°♑04'09	
greatest brilliancy	5085 Jan 30 20:57	13°♏22'01	-1.8m		5090 Apr 11 12:16	0°♎	
opposition	5085 Feb 01 10:55	12°♏45'22	4°25'43				
direct	5085 Mar 09 01:32	4°♏47'51		conjunction	5090 May 16 13:33	27°♎35'04	0°-17'-36
	5085 May 26 17:04	0°♐		minimum elong	5090 May 16 15:20	27°♎38'33	0°17'37
	5085 Jul 21 01:17	0°♑			5090 May 19 16:00	0°♒	
	5085 Sep 09 15:03	0°♓		asc. node	5090 Jun 11 03:28	17°♒19'50	
desc. node	5085 Oct 25 01:22	28°♓26'55			5090 Jun 27 21:22	0°♑	
	5085 Oct 27 11:15	0°♎		max. Earth dist.	5090 Jul 07 15:56	7°♑17'23	2.41027 AU
evening set	5085 Nov 24 00:47	18°♎02'05		morning rise	5090 Jul 24 02:25	19°♑21'18	
	5085 Dec 11 20:03	0°♑			5090 Aug 07 21:14	0°♏	
max. Earth dist.	5085 Dec 11 17:24	29°♎55'29	2.55298 AU		5090 Sep 20 04:22	0°♐	
					5090 Nov 05 06:22	0°♑	
conjunction	5086 Jan 11 04:08	20°♑59'35	0°-41'-3		5090 Dec 25 08:32	0°♓	
minimum elong	5086 Jan 11 02:44	20°♑57'07	0°41'02		5091 Feb 24 11:33	0°♎	
	5086 Jan 23 20:31	0°♒		retrograde	5091 Apr 11 06:05	10°♎04'49	
morning rise	5086 Mar 04 05:04	28°♒46'45		opposition	5091 May 20 08:13	1°♎04'53	1°00'10
	5086 Mar 05 20:19	0°♎		greatest brilliancy	5091 May 20 13:38	0°♎59'37	-1.4m
	5086 Apr 14 07:39	0°♑			5091 May 23 02:44	30°♓	
	5086 May 22 22:49	0°♎		min. Earth dist.	5091 May 24 10:51	29°♓28'47	0.64951 AU
	5086 Jun 30 13:56	0°♒		desc. node	5091 Jun 16 21:28	22°♓18'17	
	5086 Aug 09 04:44	0°♑		direct	5091 Jun 30 19:48	21°♓02'17	
asc. node	5086 Sep 06 04:35	20°♑17'51			5091 Aug 11 14:09	0°♎	
	5086 Sep 20 02:16	0°♏			5091 Oct 09 06:41	0°♑	
	5086 Nov 05 16:49	0°♐			5091 Nov 23 23:48	0°♒	
	5087 Jan 10 18:04	0°♑			5092 Jan 04 04:07	0°♎	
retrograde	5087 Feb 01 05:28	2°♑47'42			5092 Feb 12 02:43	0°♑	
	5087 Feb 21 08:34	30°♓			5092 Mar 21 05:28	0°♎	
min. Earth dist.	5087 Mar 09 20:16	24°♐14'12	0.64376 AU	asc. node	5092 Apr 28 02:23	29°♎35'28	
opposition	5087 Mar 13 09:16	22°♐49'10	4°35'43		5092 Apr 28 15:05	0°♒	
greatest brilliancy	5087 Mar 12 14:39	23°♐07'48	-1.4m	evening set	5092 May 19 09:07	15°♒52'48	
direct	5087 Apr 21 09:23	13°♐37'55			5092 Jun 07 04:41	0°♑	
	5087 Jun 21 15:39	0°♑			5092 Jul 18 13:10	0°♏	
	5087 Aug 19 00:50	0°♓					
desc. node	5087 Sep 12 00:19	13°♓59'30		conjunction	5092 Jul 20 11:41	1°♏22'14	0°49'03
	5087 Oct 08 02:32	0°♎		minimum elong	5092 Jul 20 09:31	1°♏18'25	0°49'01
	5087 Nov 23 01:29	0°♑		max. Earth dist.	5092 Aug 24 08:24	25°♏30'03	2.54462 AU
	5088 Jan 04 22:35	0°♒			5092 Aug 31 00:07	0°♐	
evening set	5088 Jan 07 17:52	2°♒01'36		morning rise	5092 Sep 13 07:37	8°♐54'26	
max. Earth dist.	5088 Jan 23 18:44	13°♒45'50	2.42552 AU		5092 Oct 15 14:03	0°♑	
	5088 Feb 14 10:57	0°♎			5092 Dec 02 06:59	0°♓	
					5093 Jan 21 18:41	0°♎	
conjunction	5088 Mar 04 12:48	14°♎35'46	-1°-5'-15		5093 Mar 20 04:50	0°♑	
minimum elong	5088 Mar 04 13:03	14°♎36'14	1°05'15	desc. node	5093 May 03 20:13	15°♑31'03	
	5088 Mar 24 08:36	0°♑		retrograde	5093 May 22 17:22	17°♑30'03	
	5088 May 01 11:29	0°♎		opposition	5093 Jun 28 05:53	9°♑40'20	-2°-16'-19
morning rise	5088 May 10 17:32	7°♎17'42		greatest brilliancy	5093 Jun 29 02:53	9°♑20'58	-1.8m
	5088 Jun 08 16:47	0°♒		min. Earth dist.	5093 Jul 05 17:43	6°♑54'50	0.55636 AU
	5088 Jul 17 21:30	0°♑		direct	5093 Aug 07 04:44	0°♑13'05	
asc. node	5088 Jul 24 03:30	4°♑40'29			5093 Oct 26 03:28	0°♒	
	5088 Aug 27 22:18	0°♏			5093 Dec 10 02:12	0°♎	
	5088 Oct 10 18:15	0°♐			5094 Jan 19 12:01	0°♑	
	5088 Nov 28 03:48	0°♑			5094 Feb 27 12:12	0°♎	
	5089 Jan 29 12:36	0°♓		asc. node	5094 Mar 16 01:02	12°♎43'36	
retrograde	5089 Mar 06 15:36	6°♓51'48			5094 Apr 07 16:34	0°♒	
	5089 Apr 08 15:54	30°♓			5094 May 18 01:05	0°♑	
opposition	5089 Apr 15 20:49	27°♑10'47	3°16'23		5094 Jun 29 03:49	0°♏	
greatest brilliancy	5089 Apr 15 21:49	27°♑09'48	-1.2m	evening set	5094 Jul 16 05:25	11°♏46'31	
min. Earth dist.	5089 Apr 16 04:25	27°♑03'14	0.67968 AU		5094 Aug 12 05:11	0°♐	
direct	5089 May 26 20:01	17°♑20'14					
	5089 Jul 18 04:29	0°♓		conjunction	5094 Sep 05 20:36	16°♐16'19	1°07'50
desc. node	5089 Jul 29 22:41	5°♓09'33		minimum elong	5094 Sep 05 20:39	16°♐16'24	1°07'50
	5089 Sep 14 22:39	0°♎		max. Earth dist.	5094 Sep 21 11:04	26°♐25'32	2.63800 AU
	5089 Nov 01 23:57	0°♑			5094 Sep 26 23:49	0°♑	
	5089 Dec 15 09:31	0°♒		morning rise	5094 Oct 23 02:37	16°♑44'02	
	5090 Jan 24 20:55	0°♎			5094 Nov 13 01:00	0°♓	
	5090 Mar 04 13:37	0°♑			5094 Dec 30 23:57	0°♎	

	5095 Feb 18 00:17	0°♄	direct	5100 Feb 17 11:17	16°♄46'46	
desc. node	5095 Mar 21 19:10	18°♄48'07		5100 Apr 10 10:15	0°♈	
	5095 Apr 10 12:18	0°♈		5100 Jun 08 15:07	0°♊	
	5095 Jun 11 18:31	0°♊		5100 Jul 30 12:15	0°♈	
retrograde	5095 Jul 21 12:19	8°♊08'49		5100 Sep 17 22:24	0°♊	
opposition	5095 Aug 22 12:11	2°♊19'15 -6°-5'-33		5100 Nov 04 09:15	0°♊	
greatest brilliancy	5095 Aug 24 16:44	1°♊38'49 -2.5m	evening set	5100 Nov 09 21:51	3°♊34'50	
min. Earth dist.	5095 Aug 30 05:51	29°♈57'12 0.42408 AU	desc. node	5100 Nov 11 15:36	4°♊42'44	
	5095 Aug 30 02:06	30°♈	max. Earth dist.	5100 Dec 01 07:43	17°♊38'39 2.59366 AU	
direct	5095 Sep 26 02:44	25°♈22'08		5100 Dec 19 17:47	0°♄	
	5095 Oct 22 15:16	0°♊				
	5095 Dec 19 01:37	0°♊	conjunction	5100 Dec 26 09:03	4°♄30'42 0°-24'-19	
asc. node	5096 Jan 31 20:10	0°♊	minimum elong	5100 Dec 26 08:12	4°♄29'15 0°24'18	
	5096 Feb 01 00:37	0°♊07'54				
	5096 Mar 13 18:43	0°♈				
	5096 Apr 25 04:15	0°♄				
	5096 Jun 07 21:26	0°♈				
	5096 Jul 23 03:30	0°♊				
evening set	5096 Aug 27 18:15	23°♊02'00				
	5096 Sep 07 15:21	0°♈				
conjunction	5096 Oct 13 07:07	22°♈42'40 0°53'22				
minimum elong	5096 Oct 13 08:10	22°♈44'21 0°53'22				
max. Earth dist.	5096 Oct 14 06:12	23°♈19'20 2.67755 AU				
	5096 Oct 24 18:21	0°♊				
morning rise	5096 Nov 26 13:05	20°♊51'37				
	5096 Dec 10 20:34	0°♊				
	5097 Jan 26 11:13	0°♄				
desc. node	5097 Feb 05 18:30	6°♄41'00				
	5097 Mar 13 11:48	0°♈				
	5097 Apr 28 02:50	0°♊				
	5097 Jun 13 00:16	0°♊				
	5097 Jul 31 19:53	0°♊				
retrograde	5097 Oct 09 05:53	24°♊30'00				
min. Earth dist.	5097 Nov 05 11:30	20°♊02'10 0.37650 AU				
opposition	5097 Nov 09 12:29	18°♊54'27 -2°-48'-42				
greatest brilliancy	5097 Nov 09 01:52	19°♊01'53 -2.9m				
direct	5097 Dec 09 01:26	13°♊53'04				
asc. node	5097 Dec 18 23:24	14°♊32'08				
	5098 Feb 02 14:28	0°♈				
	5098 Mar 28 05:31	0°♄				
	5098 May 15 19:57	0°♈				
	5098 Jul 02 19:23	0°♊				
	5098 Aug 19 20:03	0°♈				
evening set	5098 Oct 04 04:31	28°♈27'33				
	5098 Oct 06 15:03	0°♊				
max. Earth dist.	5098 Nov 05 21:41	19°♊15'18 2.66235 AU				
conjunction	5098 Nov 18 04:23	27°♊08'54 0°19'26				
minimum elong	5098 Nov 18 04:58	27°♊09'50 0°19'27				
	5098 Nov 22 14:20	0°♊				
desc. node	5098 Dec 24 16:52	20°♊59'45				
morning rise	5099 Jan 01 14:59	26°♊15'06				
	5099 Jan 07 05:54	0°♄				
	5099 Feb 20 08:39	0°♈				
	5099 Apr 03 23:12	0°♊				
	5099 May 15 07:22	0°♊				
	5099 Jun 24 21:41	0°♊				
	5099 Aug 04 20:36	0°♈				
	5099 Sep 17 16:22	0°♄				
asc. node	5099 Nov 05 21:58	26°♄08'47				
	5099 Nov 17 17:05	0°♈				
retrograde	5099 Dec 08 07:20	2°♈53'04				
	5099 Dec 28 02:19	30°♈				
min. Earth dist.	5100 Jan 06 09:28	27°♄00'22 0.49253 AU				
greatest brilliancy	5100 Jan 13 00:16	24°♄35'10 -2.1m				
opposition	5100 Jan 14 13:18	24°♄01'01 3°34'06				